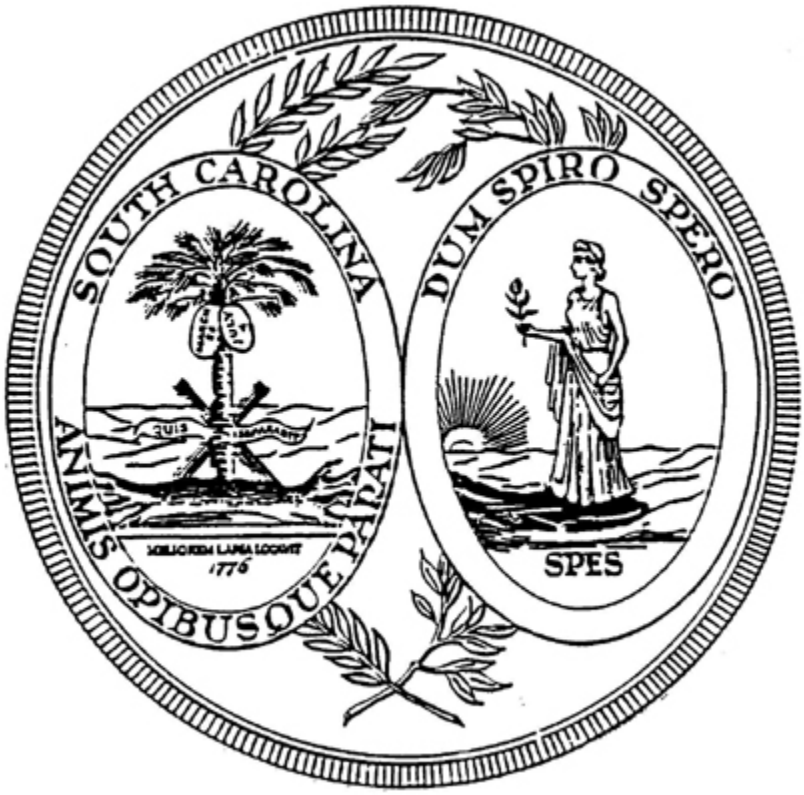
South Carolina



Communications Interoperability Plan

Draft

October 16, 2007

Table of Contents

Executive Overview

To be written after the initial drafts are approved.

South Carolina
Statewide Communications Interoperability Plan

1 Introduction

The Statewide Communications Interoperability Plan is the collaborative effort by the State's Counter Terrorism Coordinating Council (CTCC), the CTCC Regional Councils, the Division of the State Chief Information Officer (CIO), the South Carolina 800 MHz Trunking Advisory Committee, the Palmetto 800 User's Group and the Local Government Communications Association *(See Exhibits 1-6).* These groups combined represent elected officials; state and local government agencies in the areas of law enforcement, fire service, emergency medical service, emergency management; power utilities in South Carolina, agencies in Augusta-Richmond County, GA and federal agencies. These combined groups represent over forty thousand 800 MHz radio users in more than 500 agencies across the South Carolina system.

A draft of the plan was distributed to the State Counter Terrorism Coordinating Committee, the Regional Counter Terrorism Coordinating Committees, the Palmetto 800 Network Users Group, the federal partners, the power utility partners, the South Carolina National Guard, the Fireman's Association, the EMS Association, the Sheriff's Association, Law Enforcement Association, the Emergency Management agencies, state agencies, our Augusta, Georgia partners and any other agencies that may be interested in commenting on the South Carolina Plan.

State, local and federal government public safety agencies along with power utility providers in South Carolina and the agencies in Augusta-Richmond County, Georgia have made significant transitions to a common standards based 800 MHz technology platform since 1992. The statewide shared public safety/utility trunked radio system is known as the Palmetto 800 Network. Because of the maturity of the Palmetto 800 Network and the eight local government 800 MHz trunked systems, South Carolina's initial efforts in interoperability planning have been focused on the use of 800 MHz. South Carolina has held numerous meetings to provide education on the continuing need for interoperability planning and training.

South Carolina has had a statewide 800 MHz interoperability plan since 1998. The preparation of the Statewide Communications Interoperability Plan has allowed South Carolina to review its current plan and make some minor adjustments. South Carolina is hoping that the national attention being given to interoperability planning will encourage our local, federal, utility and state government partners to continue working on local interoperability plans.

In 1999 the South Carolina Public Safety Coordinating Council issued the Statewide Public safety Communications Report. The report laid out the long term recommendations and strategies for the development of a statewide interoperable communication system shared by all public safety first responders. Many of these recommendations have been accomplished, including: **Implement a Statewide Wireless Communications Network** (Palmetto 800 Network), **Adopt a Multi-Agency Governing Structure** (South Carolina 800 MHz Trunking Advisory Committee), **Form a Communications Systems User Group** (Palmetto 800 User's Group), **Pursue Funding Sources** (state and federal funds have been made available), **Encourage Creative Solutions to System Development** (Palmetto 800 Network has public and private ownership).

The South Carolina Statewide Communication Interoperability Plan was developed around the State's existing 800 MHz communications interoperability plan that has been in place for years. The various committees felt that our present interoperability plan works very well and those talkgroups and channels have already been programmed into over 40,000 of our radios statewide. The existing plan has been exercised and tested during numerous special events, evacuations and real disasters through the years. It has proven to be effective for South Carolina and will be at the core of the new Statewide Communications Interoperability Plan. Also, statewide communications interoperability classes utilizing the existing communications interoperability plan have been conducted through the Criminal Justice Academy and Fire Academy.

2 Background

The South Carolina 800 MHz Trunking Advisory Committee, the Local Government Communications Association, the Division of the State Chief Information Officer (CIO) and the State Law Enforcement Division are the key stake holders in the development and writing of the plan.

In the 1970's a regional law enforcement mutual aid radio plan was developed for South Carolina. This plan was based on the ten Council of Government Regions and utilized VHF High Band and UHF frequencies in a checker board arrangement. Each region had a common channel assigned for interoperability. Many of those counties, who still use VHF or UHF frequencies for primary dispatch, continue to use these mutual aid channels. Also in the 1970's a statewide VHF High Band radio plan was developed for the Emergency Medical Service (EMS) operation. EMS has a common statewide channel assigned for interoperability. The channel is still inexistence today and continues to be used by many EMS Services. The EMS VHF radio plan is still being utilized in much of the state but EMS has also begun a migration to 800 MHz in some areas. The EMS radio plan is under review and will be updated as required. While the fire services still primarily utilize VHF frequencies in much of the state, many fire departments in cities and counties that utilize 800 MHz for other public safety services have begun a migration to 800 MHz. The State

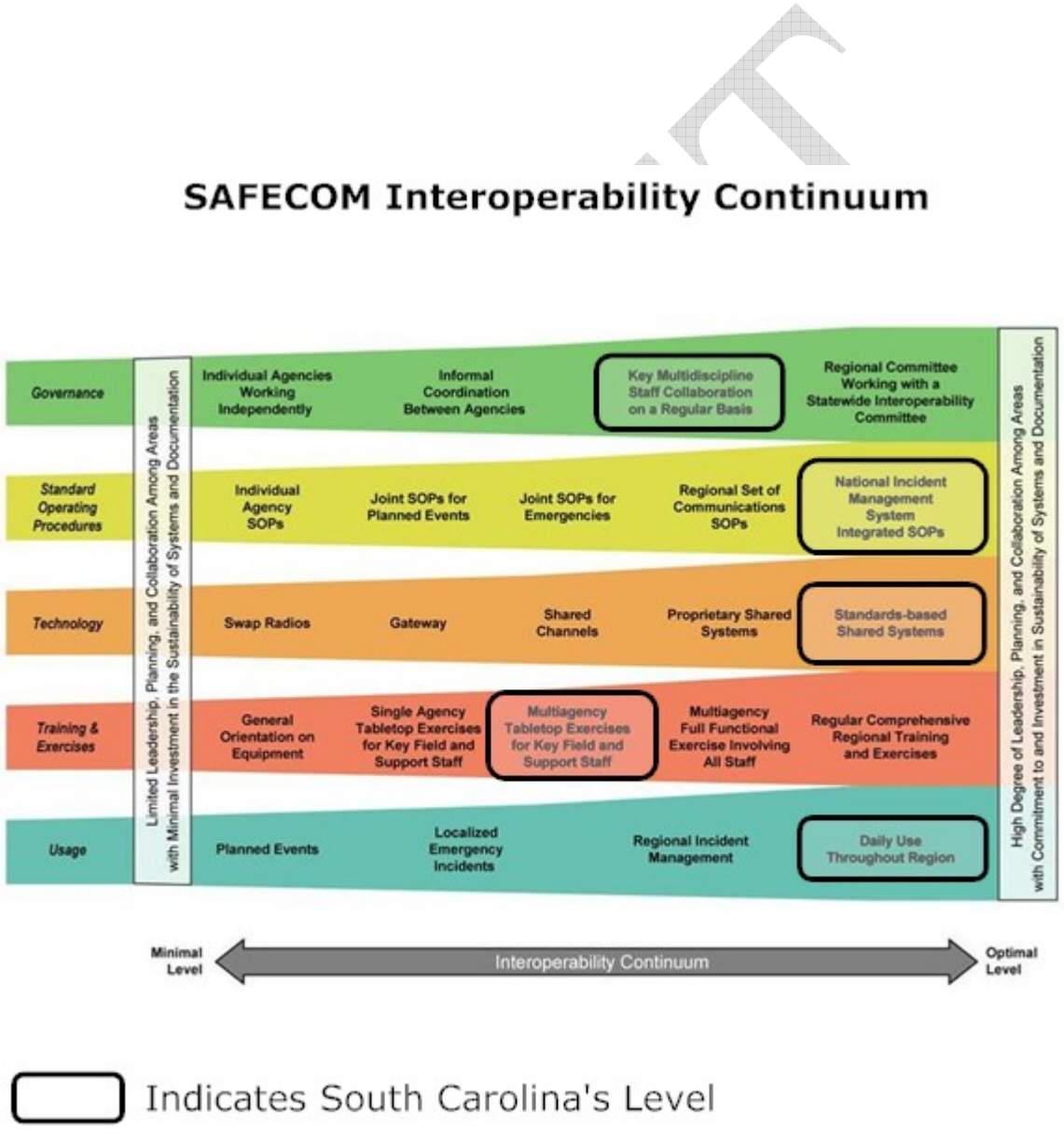
has identified and licensed State interoperability frequencies in the VHF and UHF bands for non-800 MHz system users. These frequencies will be incorporated into the Statewide Communications Interoperability Plan along with the national VHF and UHF interoperability frequencies.

After Hurricane Hugo in 1989, several counties installed 800 MHz trunked radio systems to improve communication capabilities. In 1992 the State of South Carolina began developing a statewide interoperable trunked radio system. The State partnered with a South Electric &Gas, a major power utility, in the development of the shared statewide 800 MHz trunked radio system. Today the statewide radio system is owned and operated by Motorola and supports over 22,000 radio users representing over 350 public safety agencies in South Carolina and Georgia. Key to the development of the radio system known today as the “Palmetto 800 Network” was the use of a standard’s based technology platform that allowed the eight local government trunked radios systems to have interoperability with the statewide Palmetto 800 Network. A part of the development of the statewide shared radio system was the creation of the of the Palmetto 800 User Advisory Committee which represents state and local law enforcement, local fire services, local EMS, local Emergency Management, local government 800 MHz systems and power utilities. This twenty-one member committee is tasked with providing guidance to the Division of the State Chief Information Officer (CIO) in the management of the statewide radio system.

The State of South Carolina implemented a statewide interoperability plan for the users of the Palmetto 800 Network in the mid-1990’s. This plan includes the use of trunked mutual aid talkgroups, International Tactical (ITAC) conventional channels and repeaters and South Carolina Tactical (SCTAC) 800 MHz mutual aid channels and repeaters. These resources are available for statewide interoperability on a daily bases. This plan has been woven into public safety 800 MHz radios across South Carolina for years. It has been well tested through numerous plans, exercises and disasters. The State and several agencies also utilize console patches and interoperability switches to connect to non-800 MHz radio systems. The Palmetto 800 Network also requires each of its users to submit an essential operations plan. The plans, when implemented, reduce an agencies number of talkgroups by 50% to help prevent a system overload during emergency situations that create higher than normal usage.

In 2000, as part of the statewide trunked interoperability plan, the State and several of the local government 800 MHz trunked systems began deploying conventional 800 MHz repeaters around the State to overlay the trunked system. The conventional statewide network is made up of the International Tactical (ITAC) channels and South Carolina Tactical (SCTAC) channels. Today there are over 89 conventional repeater sites representing over 100 conventional repeaters. Every county in South Carolina has at least one conventional 800 MHz repeater installed. Our larger metropolitan areas have multiple 800 MHz repeaters. Conventional 800 MHz repeaters have also been installed near critical infrastructures and universities.

The extensive use of 800 MHz for first responder communications in South Carolina will allow for interoperability with 700 MHz by incorporating 700 MHz frequencies as additional capacity for the 800 MHz systems. Where necessary, the user radios will be replaced with those that will operate in both the 700 MHz and 800 MHz bands. Since 2001, radios purchased with DHS Counter Terrorism Funds are capable of operation in both the 700 MHz and 800 MHz bands. All of these radios are either P-25 equipped or capable of being upgraded to the P-25 digital mode.



As shown in the Interoperability Continuum Chart, South Carolina needs to improve in the areas of Governance and Training & Exercises. In the Governance area South Carolina needs to continue to work on codifying its governance for the

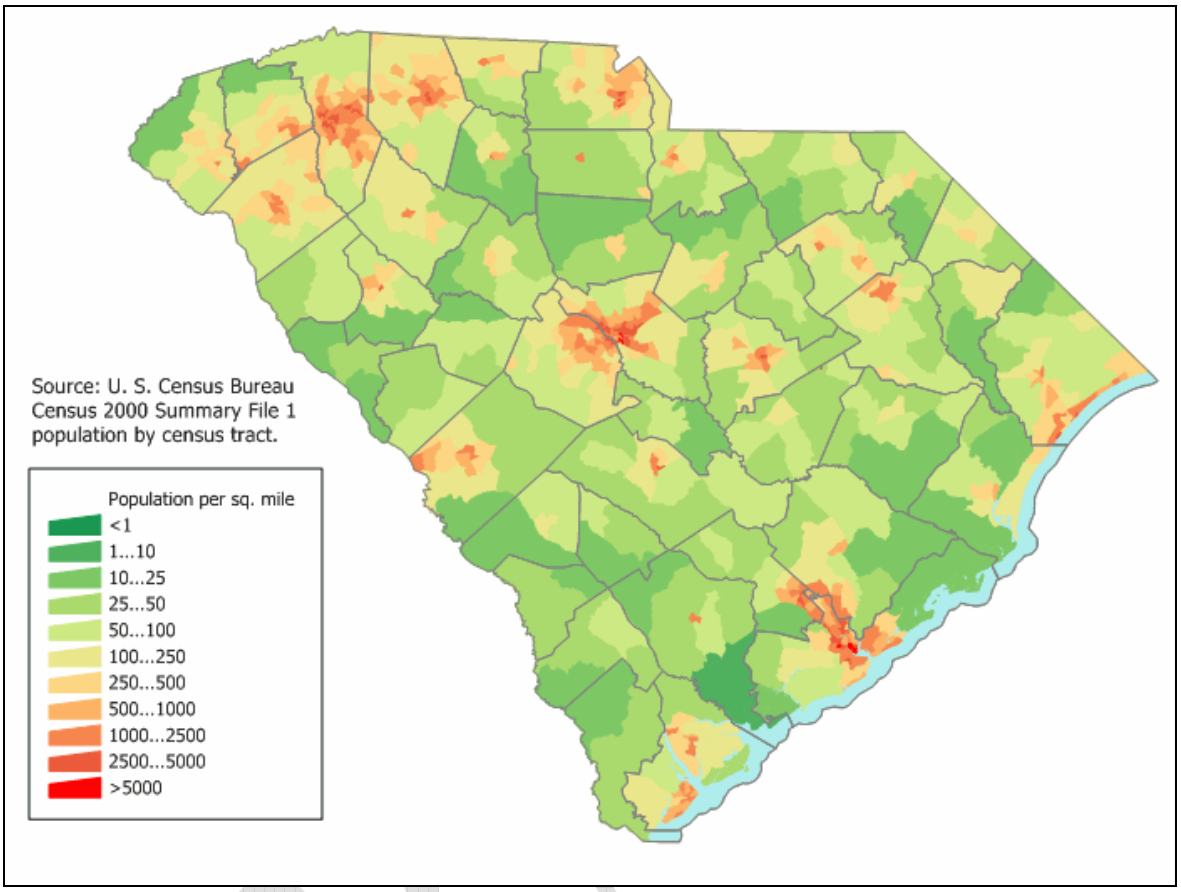
support of the Statewide Interoperability Plan and the elements of the SAFECOM Interoperability Continuum. Also representation needs to be expanded to include additional VHF and UHF users**.** In the area of Training & Exercises South Carolina needs to continue the interoperability training classes and develop plans to exercise the use of interoperable communications, in support of the Exercises element of the Interoperability Continuum, in conjunction with other exercises or as stand alone exercises to evaluate progress. In the area of Technology enhancements need to be made to capacity and coverage while continuing efforts to reduce recurring costs to users.

2.1 State Overview

The state is sub-divided into 46 counties and has 217 incorporated cities and towns. The state is sub-divided into regions for law enforcement, emergency management, emergency medical service, VHF and UHF Interoperability and other operations. Each City and County operates under a home-rule form of government.

Based on the 2000 census South Carolina has a population of 4,012,012 making it rank 26 in size. South Carolina covers 32,007 square miles comprised of a land area 30,111 square miles and a water area of 1,896 square miles. The state's average population per square mile is 133. The state is boarded by North Carolina, Georgia and the Atlantic Ocean. South Carolina's coastline extends for 187 miles. However, if all bays, inlets, and islands are considered, the coastline measures 2,876 miles.

South Carolina Population Density Map



Annually 32.5 million people take trips in South Carolina – 19 million out-of-state visitors, 5 million in-state visitors and 8.5 million pass-through visitors. In 2004 the state had 3,257,000 registered vehicles, 2,972,000 licensed drivers and 2,870 roadway miles of which 844 miles are interstate highways.

The state has 1,123 emergency response agencies and departments consisting of 203 law enforcement agencies, 676 fire departments and 244 licensed emergency medical service providers.

Several factors control South Carolina's climate. Most important are the state's location in the northern mid-latitudes, its proximity to both the Atlantic Ocean and the Appalachian Mountains, and its elevation. The state's annual average temperature varies from the mid-50's in the Mountains to low-60's along the coast. During the winter, average temperatures range from the mid-30's in the Mountains to low-50's in the Lowcountry. During summer, average temperatures range from the upper 60's in the Mountains to the mid-70's in the Lowcountry. Wintry precipitation (snow, sleet, and freezing rain) also affect South Carolina. Snow and sleet may occur separately, together, or mixed with rain during the winter months from November to March,

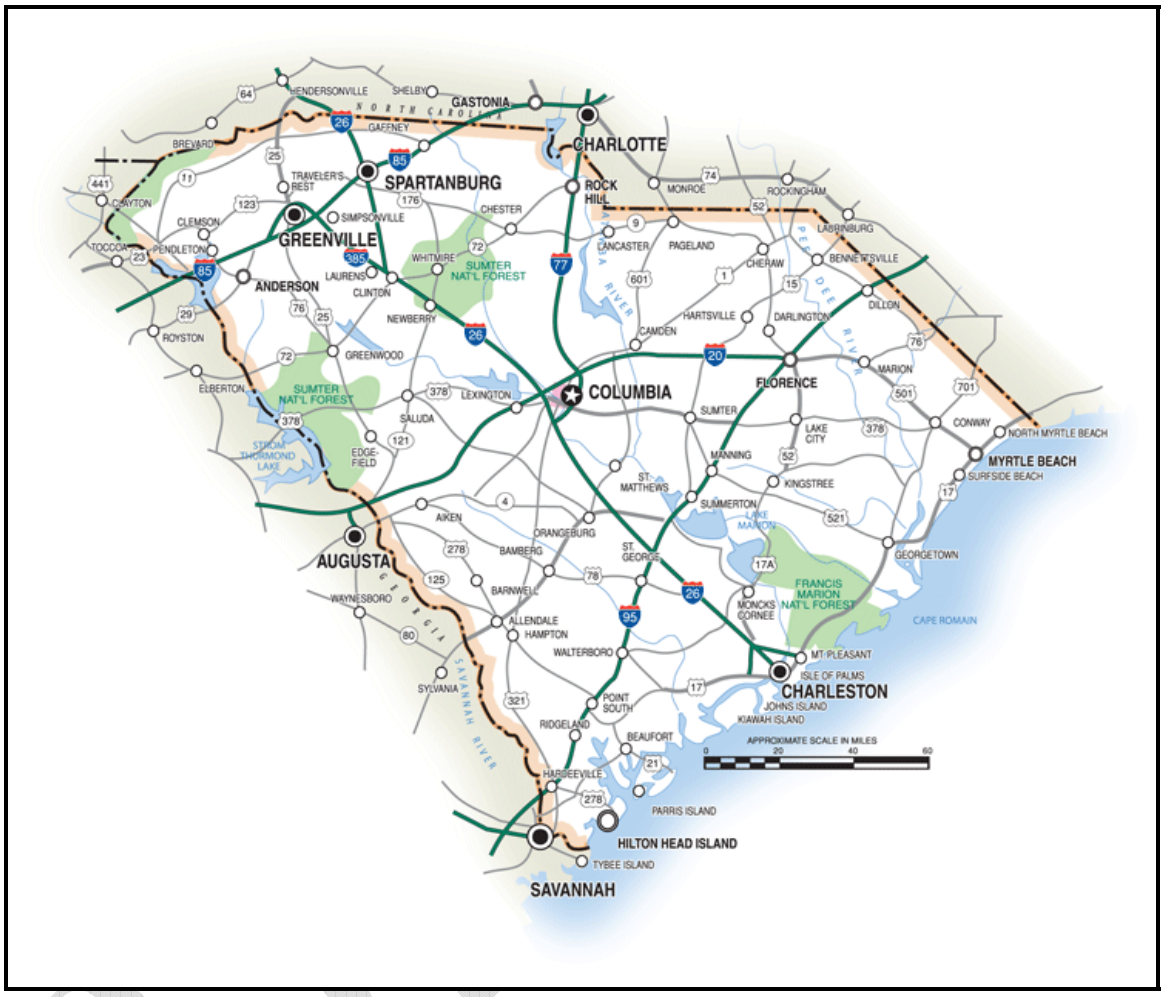
although snow has occurred as late as May in the mountains. Measurable snowfall may occur from one to three times in a winter in all areas except the Lowcountry, where snowfall occurs on average once every three years. Accumulations seldom remain very long on the ground except in the mountains. Severe weather occurs in South Carolina occasionally in the form of violent thunderstorms and tornadoes. Although less frequent than surrounding states, thunderstorms are common in the summer months. The more violent storms generally accompany squall lines and active cold fronts of late-winter or spring. Strong thunderstorms usually bring high winds, hail, considerable lightning, and sometimes spawn a tornado. Tropical cyclones affect the South Carolina coast on an infrequent basis, but do provide significant influence annually through enhanced rainfall inland during the summer and fall months. Depending on the storm's intensity and proximity to the coast, tropical systems can be disastrous. The major coastal impacts from tropical cyclones are storm surges, winds, precipitation, and tornadoes.

South Carolina is threatened by natural and technological hazards. The threat posed by these hazards is both immediate (e.g., hazardous chemical spill, hurricane, tornado) and long-term (e.g., drought, chronic chemical release). These hazards have the potential to disrupt day-to-day activities, cause extensive property damage, and create mass casualties. Historically, the greatest risk was perceived to be from natural hazards (e.g., hurricanes, tornadoes, severe storms, floods, earthquakes). However, the continued expansion of chemical usage is raising the risk posed by technological hazards (e.g., hazardous chemical releases/spills) in South Carolina.

South Carolina has several pieces of critical infrastructure and key resources. There are four active nuclear power plants in South Carolina and the Savannah River Site (a nuclear materials processing center). Five major interstates and several natural gas and oil pipelines transverse the state. The Port of Charleston is the fourth largest port on the east coast. South Carolina also has four military bases and several key suppliers of military goods. Carowinds, a major tourist attraction in the southeast, is also partially located in South Carolina.

The state is home to two major universities (Clemson University and the University of South Carolina) both of which draw crowds close to 100,000 during home football games. Tourism and agriculture rank as South Carolina’s largest industries. Therefore, assets associated with these industries are vital to the state’s economy.

South Carolina Major Highways and Waterways



Major roadways in South Carolina include the following interstate highways: I-20, I-26, I-77, I-85, and I-95. South Carolina has 71 public airports and 139 private airports. South Carolina has commercial port operations in Charleston and Georgetown. The Intercoastal Waterway transverses the coastal area of the state from the North Carolina border to the Georgia border. Major lakes include Clarks Hill Lake, Lake Hartwell, Lake Greenwood, Lake Marion, Lake Moultrie, Lake Murray, Lake Wateree and Lake Wylie.

South Carolina has the foothills of the Appalachian Mountains in its northwest corner, the Atlantic Ocean on its eastern border, eight large lakes, 47 state parks and recreation areas, several national forests and thousands of acres of undeveloped woodlands, all of which can affect emergency response services. The State of South Carolina does not border Canada or Mexico.

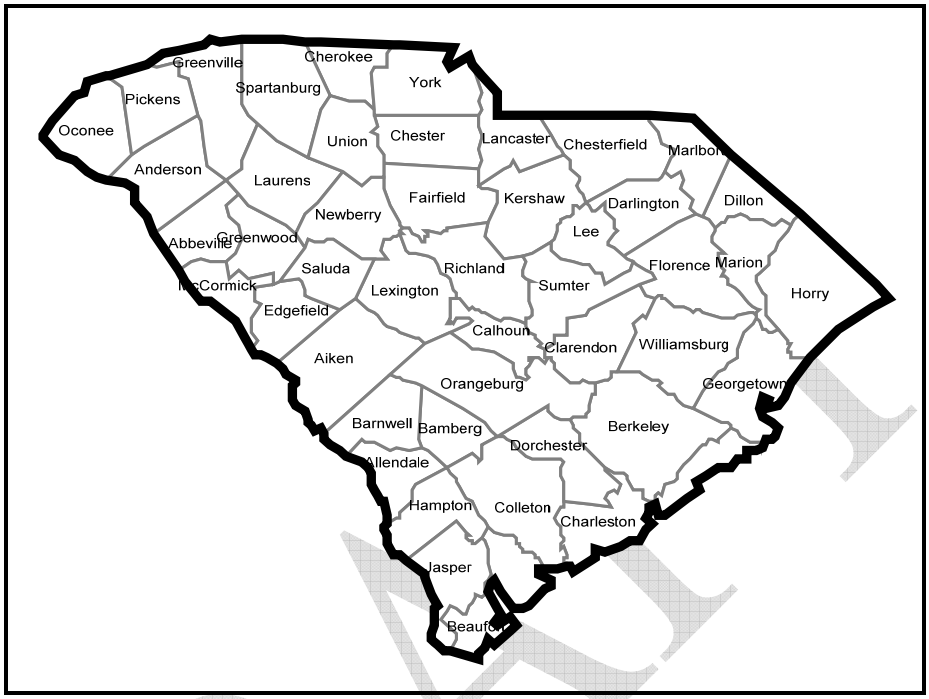
Recurring events that require multi-agency coordination include: annual statewide disaster exercises, regional WMD exercises as well as annual college sporting events, auto races, hot air balloon festivals, presidential visits, National Governors Association Conferences, Presidential Debates, horse races, golf tournaments and beach related events with attendances ranging from 50,000 to over 100,000. Several of the motorcycle rallies in the Myrtle Beach area have been known to bring in over 200,000 tourists.

2.1.1 NIMS/Multi-Agency Coordination System (MCS) Incorporation

The State of South Carolina, along with all of its counties, has adopted the National Incident Management System (NIMS) and is currently compliant with the requirements. NIMS has been incorporated into the State Emergency Operations Plan and the State Homeland Security Strategy. Mr. Mark Sanford, Governor of South Carolina, issued Executive order 2005-12 on June 3, 2005 directing the adoption of the National Incident Management System (NIMS) as the standard for incident management in the state. The state developed the *National Incident Management System (NIMS) Strategic Implementation Plan* to provide the State of South Carolina with a strategic roadmap for coming into full compliance with the intent of NIMS Implementation including the institutionalization of NIMS within the State of South Carolina. Local jurisdictions and state agencies have been tasked, via several joint issued Homeland Security Information Bulletins from the South Carolina Law Enforcement Division (SLED) and the South Carolina Emergency Management Division (SCEMD), to follow the NIMS implementation matrices developed by the NIMS Integration Center (NIC). The National Incident Management Capability Assessment Support Tool (NIMCAST), which is the preferred compliance tool of FEMA, has been utilized to ensure and assess FY 2007 NIMS compliance. The State continues to fund a NIMS Coordinator for the state whose job duties are to ensure that both state and local agencies understand NIMS and compliance issues. Also, as mentioned above, the State has developed a strategic roadmap to guide NIMS implementation statewide. The Communications Interoperability Procedures for Public Safety Agencies supports unified command, common terminology and integrated communications.

South Carolina has a number of plans, systems and teams in place to implement and support NIMS. These include: REACH - SC South Carolina's Emergency Notification System, National Incident Management Teams and WebEOC - Web-enabled crisis information management system.

2.1.2 Regions/Jurisdictions



SOUTH CAROLINA INCORPORATED CITIES AND TOWNS BY COUNTY

ABBEVILLE
- Abbeville (County Seat)
- Calhoun Falls
- Donalds
- Due West
- Lowndesville

AIKEN
- Aiken (County Seat)
- Burnettown
- Jackson
- Monetta
- New Ellenton
- North Augusta
- Perry
- Salley
- Wagener
- Windsor

ALLENDALE
- Allendale (County Seat)
- Fairfax
- Sycamore
- Ulmer

HAMPTON
- Brunson
- Estill
- Furman
- Gifford
- Hampton (County Seat)
- Luray
- Scotia
- Varnville
- Yemassee

HORRY
- Atlantic Beach
- Aynor
- Briarcliffe Acres
- Conway (County Seat)
- Loris
- Myrtle Beach
- Nichols
- North Myrtle Beach
- Surfside Beach

JASPER
- Hardeeville
- Ridgeland (County Seat)

ANDERSON
- Anderson (County Seat)
- Belton
- Honea Path
- Iva
- Pelzer
- Pendleton
- Starr
- West Pelzer
- Williamston

BAMBERG
- Bamberg (County Seat)
- Denmark
- Ehrhardt
- Govan
- Olar

BARNWELL
- Barnwell (County Seat)
- Blackville
- Elko
- Hilda
- Kline
- Snelling
- Williston

BEAUFORT
- Beaufort (County Seat)
- Bluffton
- Hilton Head Island
- Port Royal

BERKELEY
- Bonneau
- Goose Creek
- Hanahan
- Jamestown
- Moncks Corner (County Seat)
- St. Stephen

CALHOUN
- Cameron
- St. Matthews (County Seat)

CHARLESTON
- Awendaw
- Charleston (County Seat)
- Folly Beach
- Hollywood
- Isle of Palms
- Kiawah Island
- McClellanville
- Meggett
- Mount Pleasant
- North Charleston
- Ravenel
- Rockville

KERSHAW
- Bethune
- Camden (County Seat)
- Elgin

LANCASTER
- Heath Springs
- Kershaw
- Lancaster (County Seat)

LAURENS
- Clinton
- Cross Hill
- Gray Court
- Laurens (County Seat)
- Waterloo

LEE
- Bishopville (County Seat)
- Lynchburg

LEXINGTON
- Batesburg-Leesville
- Cayce
- Chapin
- Gaston
- Gilbert
- Irmo
- Lexington (County Seat)
- Pelion
- Pine Ridge
- South Congaree
- Springdale
- Summit
- Swansea
- West Columbia

MARION
- Marion (County Seat)
- Mullins
- Sellers

MARLBORO
- Bennettsville (County Seat)
- Blenheim
- Clio
- McColl
- Tatum

McCORMICK
- McCormick (County Seat)
- Parksville
- Plum Branch

NEWBERRY
- Little Mountain
- Newberry (County Seat)
- Peak
- Pomaria
- Prosperity
- Silverstreet
- Whitmire

- Seabrook Island
- Sullivan's Island

CHEROKEE
- Blacksburg
- Gaffney (County Seat)

CHESTER
- Chester (County Seat)
- Fort Lawn
- Great Falls
- Lowrys
- Richburg

CHESTERFIELD
- Cheraw
- Chesterfield (County Seat)
- Jefferson
- McBee
- Mount Croghan
- Pageland
- Patrick
- Ruby

CLARENDON
- Manning (County Seat)
- Paxville
- Summerton
- Turbeville

COLLETON
- Cottageville
- Edisto Beach
- Lodge
- Smoaks
- Walterboro (County Seat)
- Williams

DARLINGTON
- Darlington (County Seat)
- Hartsville
- Lamar
- Society Hill

DILLON
- Dillon (County Seat)
- Lake View
- Latta

DORCHESTER
- Harleyville
- Lincolnville
- Reevesville
- Ridgeville
- St. George (County Seat)
- Summerville

EDGEFIELD
- Edgefield (County Seat)
- Johnston
- Trenton

FAIRFIELD
- Ridgeway

OCONEE
- Salem
- Seneca
- Walhalla (County Seat)
- West Union
- Westminster

ORANGEBURG
- Bowman
- Branchville
- Cope
- Cordova
- Elloree
- Eutawville
- Holly Hill
- Livingston
- Neeses
- North
- Norway
- Orangeburg (County Seat)
- Rowesville
- Santee
- Springfield
- Vance
- Woodford

PICKENS
- Central
- Clemson
- Easley
- Liberty
- Norris
- Pickens (County Seat)
- Six Mile

RICHLAND
- Arcadia Lakes
- Blythewood
- Columbia (County Seat)
- Eastover
- Forest Acres

SALUDA
- Monetta
- Ridge Spring
- Saluda (County Seat)
- Ward

SPARTANBURG
- Campobello
- Central Pacolet
- Chesnee
- Cowpens
- Duncan
- Inman
- Landrum
- Lyman
- Pacolet
- Reidville
- Spartanburg (County Seat)

	- Winnsboro (County Seat)
FLORENCE	- Coward
	- Florence (County Seat)
	- Johnsonville
	- Lake City
	- Olanta
	- Pamplico
	- Quinby
	- Scranton
	- Timmonsville
GEORGETOWN	- Andrews
	- Georgetown (County Seat)
	- Pawleys Island
GREENVILLE	- Fountain Inn
	- Greenville (County Seat)
	- Greer
	- Mauldin
	- Simpsonville
	- Travelers Rest
GREENWOOD	- Greenwood (County Seat)
	- Hodges
	- Ninety Six
	- Troy
	- Ware Shoals
	- Wellford
	- Woodruff
SUMTER	- Mayesville
	- Pinewood
	- Sumter (County Seat)
UNION	- Carlisle
	- Jonesville
	- Lockhart
	- Union (County Seat)
WILLIAMSBURG	- Greeleyville
	- Hemingway
	- Kingstree (County Seat)
	- Lane
	- Stuckey
YORK	- Clover
	- Fort Mill
	- Hickory Grove
	- McConnells
	- Rock Hill
	- Sharon
	- Smyrna
	- Tega Cay
	- York (County Seat)

Emergency Response Agencies

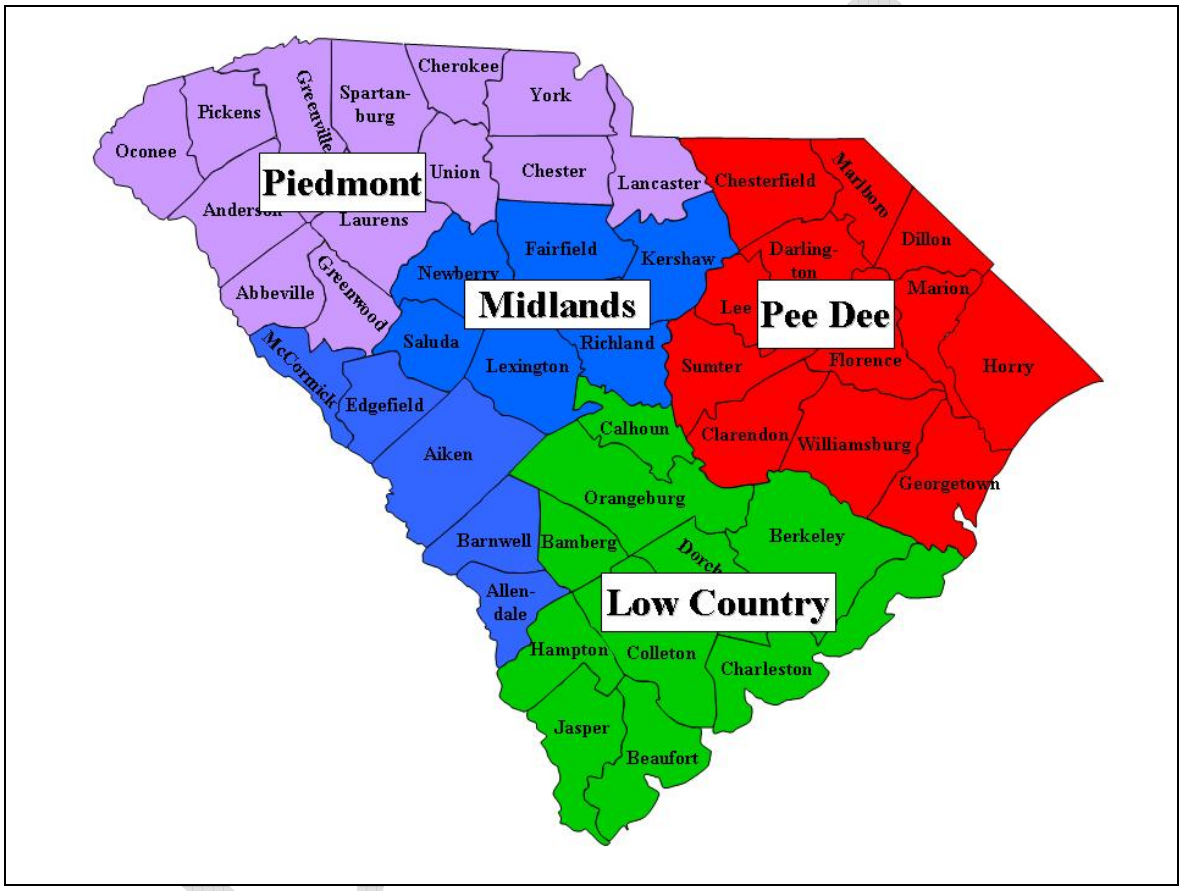
State emergency response agencies in South Carolina include the: State Law Enforcement Division, South Carolina Department of Public Safety, South Carolina Department of Natural Resources, South Carolina Emergency Management Division, Division of the State Chief Information Officer, Department of Health and Environmental Control, State Forestry Commission, South Carolina Department of Transportation and South Carolina National Guard.

County Emergency Response Agencies include: Sheriff's Offices, Fire Departments, Emergency Medical Services and Emergency Management Offices.

City and Town Emergency Response Agencies may include: Police Departments, Fire Departments, Rescue Squads and Emergency Management Offices.

Other Emergency Response Agencies in South Carolina include: Federal Bureau of Investigation, Alcohol, Tobacco and Firearms, Drug Enforcement Agency, U. S. Forest Service, U.S. Coast Guard, U.S. Civil Air Patrol, American Red Cross, and Amateur Radio RACES/ARES.

South Carolina
Counter Terrorism Coordinating Council Regions



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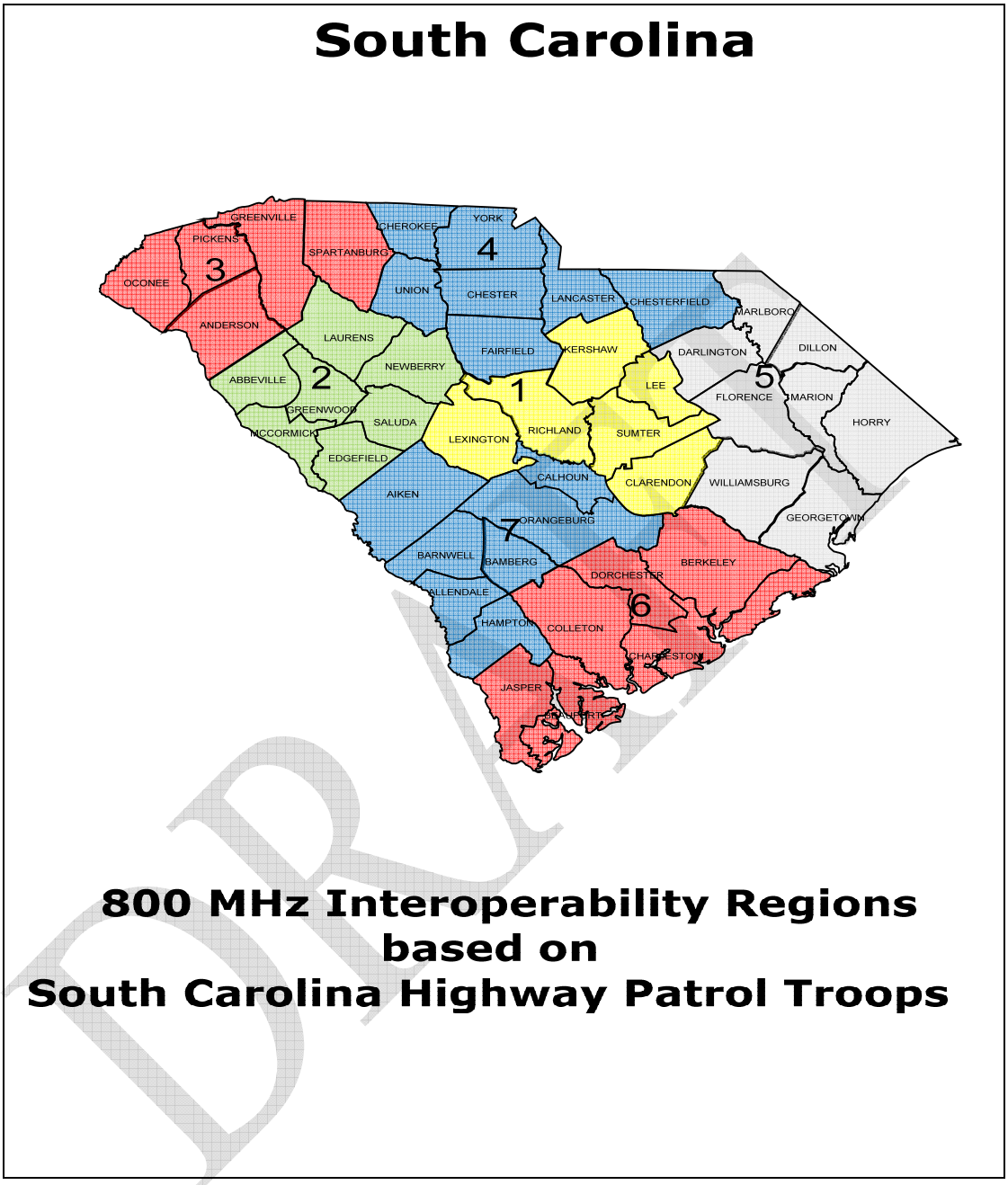

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Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7
Clarendon Kershaw Lee Lexington Richland Sumter	Abbeville Edgefield Greenwood Laurens McCormick Newberry Saluda	Anderson Greenville Oconee Pickens Spartanburg	Cherokee Chester Chesterfield Fairfield Lancaster Union York	Darlington Dillon Florence Horry Georgetown Marion Marlboro Williamsburg	Berkeley Beaufort Charleston Colleton Dorchester Jasper	Aiken Allendale Bamberg Barnwell Calhoun Hampton Orangeburg

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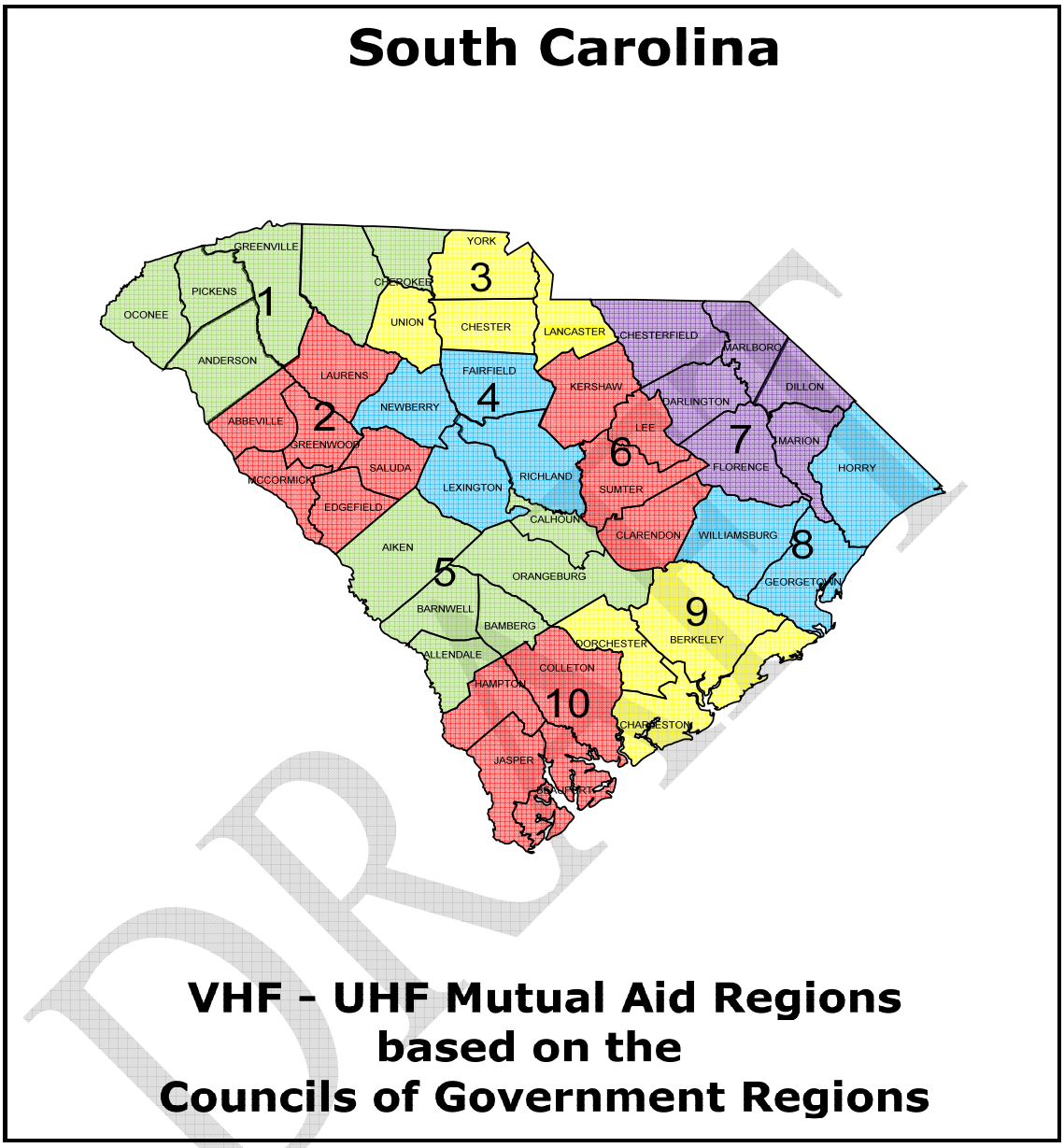

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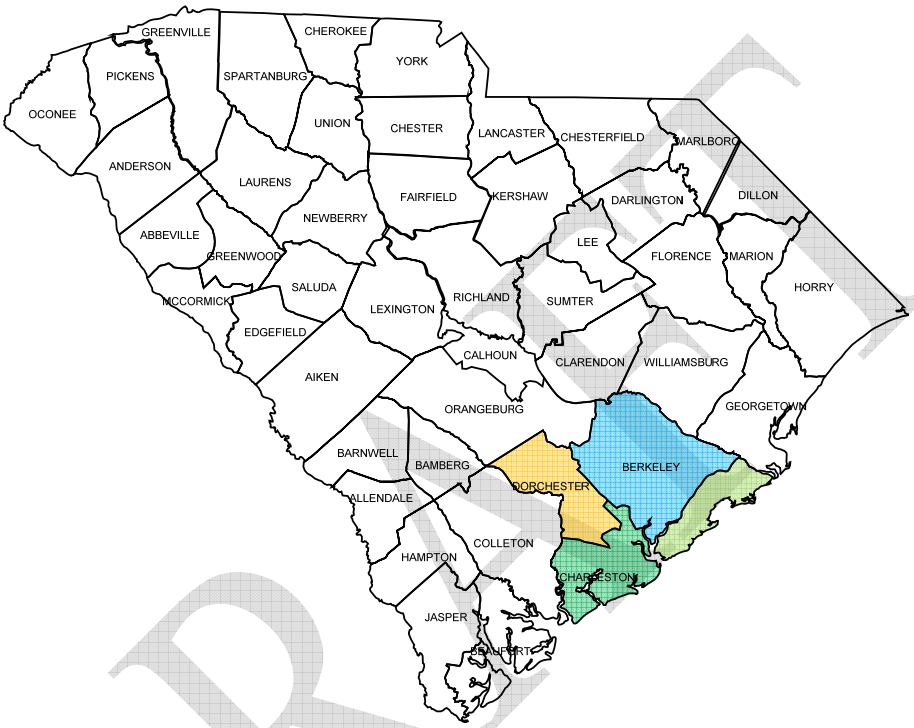
2.1.2 UASI Areas/TIC Plans

Designated Metro Area	*Regions / Jurisdictions*	*TICP Title/ Completion Date*	*POC Name*	*POC Email*
Charleston, South Carolina Urban Area	<u>COUNTIES</u> Berkeley Charleston Dorchester <u>CITIES</u> Charleston Goose Creek Hanahan Isle of Palms North Charleston <u>TOWNS</u> Bonneau Folly Beach Harleyville Lincolnville Moncks Corner Mt. Pleasant Ridgeville St. George Jamestown St. Stephens Sullivans Island Summerville	Tactical Interoperable Communications (TIC) Plan for the Charleston, South Carolina Tri-County Area Dated May 2006 TIC Plan exercise was conducted on June 8, 2006.	Laurent Britton Chuck Reynolds, City of Charleston	lbritton@charlestoncounty.org reynoldSC@ci.charleston.SC.u

South Carolina



Charleston, SC Tri-County Area
Tactical Interoperable Communications Plan

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Designated Metro Area	*Regions / Jurisdictions*	*TICP Title/ Completion Date*	*POC Name*	*POC Email*
Charlotte Urban Area and Anson County, NC	NORTH CAROLINA Anson County Cabarrus County Catawba County Gaston County Iredell County Lancaster County Lincoln County Stanly County Union County SOUTH CAROLINA Lancaster County York County ***2.1***	2.2 Charlotte UASI TICP July 25, 2006 Validated by HLS Sept. 2006	2.3 Deputy Chief David Duffy Christina Parkins 2.4 Deputy Chief David Duffy Christina Parkins	2.5 dduffy@ci.charlotte.nc.us cparkins@ci.charlotte.nc.us 2.6 dduffy@ci.charlotte.nc.us cparkins@ci.charlotte.nc.us

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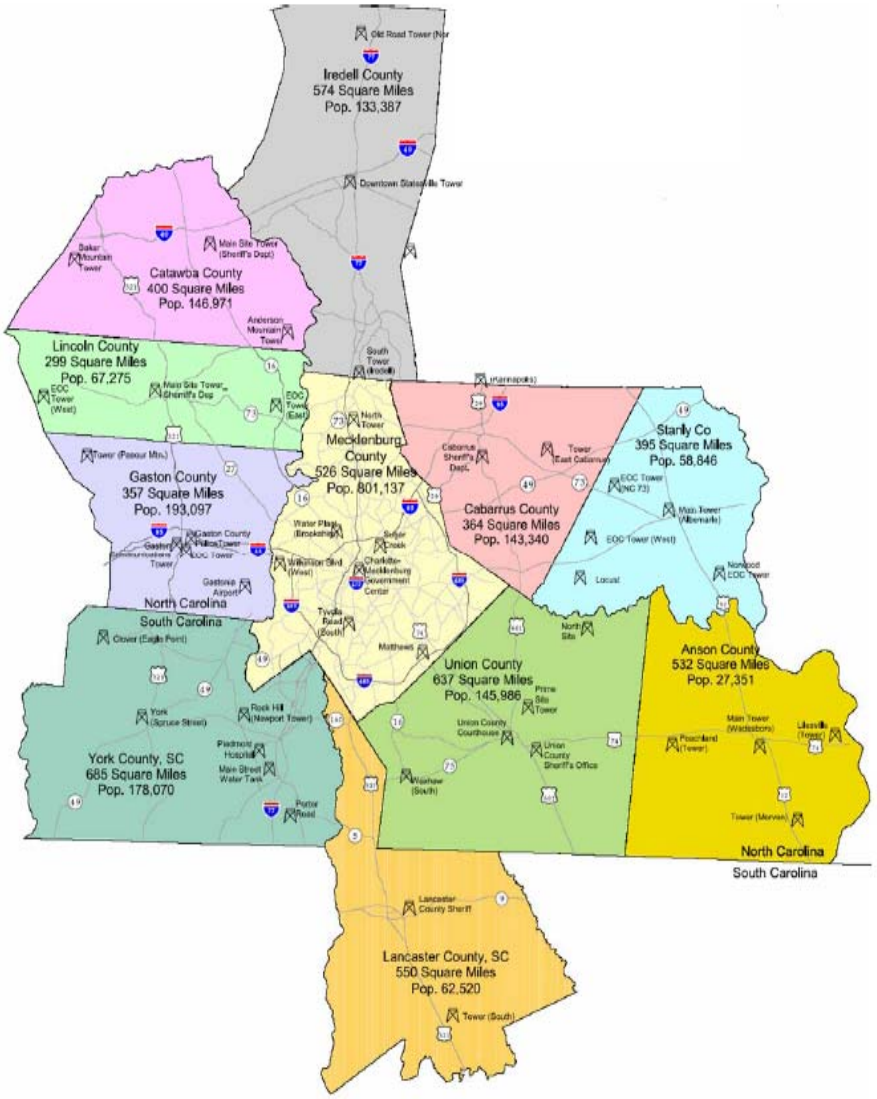
Charlotte Urban Area
Tactical Interoperable Communications Plan



2.2 Participating Agencies and Points of contacts

As stated earlier, South Carolina has had a Statewide Interoperability Plan in place since the late 1990's. The plan has been integrated into our hurricane evacuation plans; it is used at university football games, special events, political debates, hazmat responses, the Graniteville train derailment in 2005 and has become part of South Carolina's standard operating procedure.

South Carolina has had in-place for years a method to promote, review and coordinate interoperability plans. In South Carolina today 76% of the population is served by law enforcement agencies that utilize the Palmetto 800, County or City 800 MHz radio systems. The Palmetto 800 User's Group (May 16, 2007 meeting), South Carolina 800 MHz Trunking Advisory Committee (May 16, 2007 meeting) and the Local Government Communications Association (July 19, 2007 meeting) all voted to continue to use South Carolina's existing Statewide Interoperability Plan as the basis of South Carolinas submission to DHS for its Statewide Interoperability Plan.

The Palmetto 800 Network users hold bi-annual meeting each year (one in the fall and one in the spring). All of the Palmetto 800 users, local government 800 MHz users, VHF users and UHF users are all invited to attend the Statewide User's Group Meeting. The South Carolina 800 MHz Trunking Advisory Committee meets every other month and the Local Government Communications Association meets once a quarter.

The input of our local users was important because it indicates that South Carolina has a successful interoperability plan in-place that the uses across the State feel comfortable with. Although no agencies were individually interviewed for the plan, planning sessions were held with the Palmetto 800 User's Group, the South Carolina 800 MHz Trunking Advisory Committee and the Local Government Communications Association *(See Exhibits 1-6).* While agencies whose utilize 800 MHz provided significant input, future plans include obtaining input from those agencies that still primarily use VHF and UHF frequencies. The Division of the State Chief Information Officer, which is also the Administrator of the South Carolina Statewide Trunked 800 MHz Radio System (Palmetto 800 Network), gathered most of the data.

The Division of the State Chief Information Officer, Wireless Section, has been tasked with the development and management of the statewide plan.

2.3 Statewide Plan Point of Contact

George Crouch
Wireless Manager
Division of the State Chief Information Officer
4430 Broad River Road
Columbia, SC 29210
(803) 896-0367 office
(803) 896-0098 fax
gcrouch@cio.SC.gov

Mr. Crouch is a full-time employee of the State of South Carolina, but has other Public Safety Communications Responsibilities as part of his job duties and he is not operating as the full time interoperability coordinator.

The South Carolina Legislature does not convene until January 2008. The State CIO has submitted a request in its 2008/2009 budget request to provide full time personnel support to the overall implementation of the strategic initiatives of the PSIC grant and the Statewide Communications Interoperability Plan. Currently agencies are supporting this project using existing personnel and budgets to support the PSIC initiative

2.4 Scope and Timeframe

The scope of South Carolina's statewide interoperability plan is to continue the development of the Palmetto 800 Network system's Statewide Interoperable Communications capability while enhancing its ability to provide interoperability solutions with VHF, UHF and the local government 800 systems users. South Carolina's Plan must also manage the available capacity of the radio systems negative system effects while improving and enhancing interoperability solutions. South Carolina believes the key to effective interoperability solutions is preplanning, management, training and relationship building. South Carolina continues to support its standards-based radio system that it started twelve years ago and will continue to encourage agencies to participate in the system. The State realizes that all agencies can not afford to equip every first responder with a radio that has access to the statewide system. South Carolina's goal is to at least have that level of interoperability at the Incident Command Level. The State, through its cache of equipment, gateways and the Emergency Communications and Interoperability Response Team, will attempt to provide the necessary equipment any agency may be lacking. The plan proposes technology enhancements to the existing interoperability capabilities that, with sufficient funding, will be completed in three years.

South Carolinas interoperability solutions and plans must be incorporated into daily events, operations and emergency responses. The primary minimum goals of interoperability are to establish interoperability for command and control. The use of interoperability channels or talkgroups is recommended to establish on-scene coordination and tactical operations. Interoperability should use established interoperability talkgroups or channels and not dispatch channels. Agencies are encouraged to continue to build working relationships and local interoperability solutions for the agencies they interact with. The plan proposes training and exercises activities that, with sufficient funding, will be completed in three years.

While gateways will be used as a temporary tool when interoperability talkgroups or channels are not available, gateway connectivity to trunked systems must be closely monitored and used as only a last resort. The preferred method for gateway use is South Carolina's conventional repeater network. South Carolina does not consider gateway use as a long term solution to interoperability. The plan proposes enhancements to the existing gateway capabilities that, with sufficient funding, will be completed in three years.

While the state maintains a cache of communications equipment for major disasters and catastrophic events, this cache needs to be expanded in order to serve a greater number of agencies. The plan proposes an increase in the cache of interoperable communications equipment that, with sufficient funding, will be completed within two years.

South Carolina realizes the importance of an accurate database of public safety radio systems, frequencies and radios. This database is necessary for the planning of additional migration to 800 MHz and the implementation of narrowbanding for the VHF and UHF users. The plan proposes to utilize The Communication Assets Survey and Mapping Tool (CASM) for the gathering and storing of this data. With sufficient funding this will be completed within three years.

3 Methodology

3.1 Multi-Jurisdictional Input

South Carolina has utilized a collaborative methodology in the development of the statewide plan. The core participants were members of the Counter Terrorism Coordination Council (CTCC), the South Carolina 800 MHz Trunking Advisory Committee and the Local Government Communications Association. The members of these groups represent state and local government law enforcement, fire service, emergency medical service and emergency management agencies. Private and cooperative power utilities are also represented. Additional input was provided by federal agencies and non-governmental organizations including the American Red Cross, Amateur Radio ARES/RACES, Civil Air Patrol, South Carolina Sheriff's Association and the

South Carolina Telephone Association. A draft copy of South Carolina's Plan was distributed to the various communications committees and Counter Terrorism Coordinating Councils across the state for review and comments during November of 2007.

The planning process included the review of previous assessments, existing interoperability plans and procedures, on-going interoperability efforts and meetings with the Local Government Communications Association, the South Carolina 800 MHz Trunking Advisory Committee, the Palmetto 800 User's Group, the Core Interoperability Group and regional CTCC meetings. Drafts of plan sections were provided to all participating agencies for input.

Meetings were held in the four Counter Terrorism Coordinating Council[1] regions throughout the month of November. Representation from prevention, response, and recovery disciplines as well as political, industry, volunteer, non-governmental organizations, local, regional representatives were invited to attend. In these meetings, key players from the State's Interoperability Committee will solicit interoperability problem inputs and potential solutions consistent with the State's Homeland Security Strategic plan, the State's Interoperability Plan, and the Public Safety Interoperable Communications Grant Guidance.

All grant proposals will be reviewed and prioritized by representatives from the Office of the Chief Information Officer, State Counter Terrorism Communications Committee, the State Counterterrorism Coordinating Council[2], and the SAA. The State's Interoperability Plan will be updated as required and shall be consistent with the State's Homeland Security Strategy.

The highest priority proposals—those optimizing interoperable communications at the least cost, consistent with State's Homeland Security Strategic Plan, the State's Interoperability Plan, and the Public Safety Interoperable Communications Grant Guidance, will be submitted to the SAA for funding in priority order.

[1] The Regional Terrorism Coordinating Councils exist within each of the four regions of the State—the Piedmont, Midlands, PeeDee, and Low Country. They are composed of discipline and subject matter experts; political, industry, volunteer and NGO representatives; as well as local representatives. They include representation from County Needs Assessment Committees composed of the county Sheriff, Police Chief, Emergency Medical Services Director, Fire Chief, and Local Emergency Management representatives. These entities work together to achieve the national preparedness goal.

[2] In accord with the State Strategy and under direction from the SAA, the State Counter Terrorism Coordinating Council exists and is composed of discipline and subject matter experts; political, industry, volunteer and NGO representatives; as well as local, region, and State representatives. It provides the high-level governance structure concerned with developing and sharing capabilities Statewide as well as responding to Interstate needs (via EMAC).

The SAA will select these proposals for funding in the priority order provided in accord with guidance from the State's Counterterrorism Coordinating Council.

As one of the US East Coast hurricane prone states South Carolina began developing a statewide interoperability plan in 1998. This plan has continued to grow and be utilized through out South Carolina for the last nine (9) years. As part of the statewide interoperability plan South Carolina also settled on a statewide technology platform that would allow for the rapid deployment of assets across the state while supporting the interoperability plan. With over 40,000 800 MHz radios in service today, South Carolina's significant transition to the 800MHz radio band and the maturity of the South Carolina statewide radio system known as the "Palmetto 800 Network", South Carolina's efforts in interoperability planning have been focused on its 800 MHz radio platform. Input for this planning was provided by the State's Counter Terrorism Coordinating Council, the Division of State Chief Information Officer, the Palmetto 800 User Advisory Committee, the Palmetto 800 User's Group and the Local Government Communications Association which represents the eight (8) local government owned and operated 800 MHz radio systems.

3.2 Continuing Input and Support

The planning participants will participate in periodic plan reviews, updates and additions. This will be accomplished through their regular committee meetings, special meetings, user group meetings and web site information. The Palmetto 800 Network Users Group holds bi-annual meeting each year (one in the fall and one in the spring). All users of the Palmetto 800 Network users, local government 800 MHz users, VHF users and UHF users are all invited to attend the Statewide Users Group Meeting. The Palmetto 800 MHz User Advisory Committee meets every other month and the Local Government Communications Association meets once a quarter.

3.3 Incorporation of the Tactical Area Interoperable Plans

The Charleston, South Carolina Tri-County Area Tactical Interoperable Communications Plan and the Charlotte, North Carolina Urban Area Tactical Interoperable Communications Plans were reviewed to ensure that the Statewide Communications Interoperability Plan aligned with and supported the elements of these TIC Plans. The South Carolina SCIP fully supports the Tri-County Area TICP in the utilization of common 800 MHz conventional tactical channels and the sharing of the Palmetto 800 Network Mutual Aid Talkgroups. The SCIP supports the Charlotte TICP in the swapping of radios, utilization of common 800 MHz conventional tactical channels and the use of gateways.

3.4 Implementation Strategy

Implementation of the Interoperable Communications Plan throughout South Carolina will require a collaborative statewide effort. The governance structure that will be used to support implementation efforts consists of State Agencies, County Governments and Municipal Governments that are located throughout the State of South Carolina.

The State has a history of supporting nongovernmental organization's interoperable communications needs through the Palmetto 800 Mutual Aid Talkgroups, Law Enforcement Mutual Aid Talkgroups, Utility Mutual Aid Talkgroups and the 800 MHz mutual aid channels. Users with access to these mutual aid channels include private medical helicopters, private hospitals, private ambulance services, utility companies as well as the National Guard and federal agencies. Under the South Carolina Emergency Operations Plan, when required for interoperability, the Civil Air Patrol, Amateur Radio RACES/AREAS and other nongovernmental agencies may be provided 800 MHz radios from the State's cache in order to support disaster missions. Other nongovernmental organizations may be issued 800 MHz radios when required for communications interoperability in support of large scale special events and other activities. Power utility representatives serve on the Palmetto 800 User Advisory Committee and all state, local, federal, power utility, law enforcement, emergency medical service and fire services are invited to attend and participate in the bi-annual user's group

meetings. Nine power utility providers and eight federal agencies already participate in the Palmetto 800 Network.

There are no tribal government entities in South Carolina with public safety or first responder responsibilities.

Plans are in progress to identify and license interoperability frequencies in the VHF and UHF bands which will be part of the South Carolina Statewide Communications Interoperability Plan. These frequencies will be incorporated into the State Communications Interoperability Plan. The Palmetto 800 Network today represents over 350 different agencies in South Carolina and Georgia including State, County, City, Fire, EMS, Emergency management, Power Utilities and nine Federal Agencies.

It is South Carolina's intent to write the statewide interoperability plan around its existing plans that have been in place for years. Our Committees and system users feel that our existing interoperability plan works very well, has already been programmed into over 40,000 of our radios statewide, statewide interoperability classes utilizing our existing plans are already being taught through the Criminal Justice Academy and these plans have been exercised regularly during special events and real disaster. The South Carolina existing plan has proven to be efficient and effective for the last nine years. Using the PSIC guidelines, they are modifying and expanding existing statewide interoperability plan to include the PSIC criteria.

4 Current Statewide Assessment

The assessment of South Carolina's current communications and interoperability environment included the 2006 Interoperable Communications Assessment, the analysis of users by radio band (VHF, UHF, 800 MHz), the analysis of 800 MHz conventional channels and repeaters, the analysis of the Interoperability Frequency Plan, the capabilities of the local government 800 MHz trunked systems and the capabilities of the Palmetto 800 Network. Also reviewed were the governance structure, standard operating procedures, training and exercises and usage.

In 2006 an assessment was made of the interoperable communications capabilities of each major state agency and each county in South Carolina. These assessments revealed a significant need for improvement in the following areas:

- Inclusion of VHF and UHF users in interoperability planning and coordination
- Inclusion of VHF and UHF users in the governance structure
- Development of interoperability SOPs for Fire and EMS services
- Development of local interoperability plans
- Development of local interoperability agreements and SOPs

- Development of Command and Control Policies
- Acquisition of redundant, secure and fault tolerant communications systems
- Interoperability and maintenance funding
- Ability of local agencies to relocate if necessary
- Continuity of Communications Plans
- Training on interoperability communications equipment
- Emergency response plans management structure compliance with NIMS

In the past year progress has been made in some of these areas.

First responders in South Carolina use various means of communication but primarily VHF, UHF and 800 MHz radios. While law enforcement has made a significant shift to 800 MHz in recent years, the majority of Fire and EMS services continue to use the VHF or UHF frequency bands. One reason for this is that the majority of fire fighters and some EMS responders are volunteers and the cost to acquire 800 MHz radios and obtain 800 MHz service continues to be a financial barrier for many users.

The use of 800 MHz mutual aid talkgroups and mutual aid conventional channels is the primary means of interoperability in South Carolina. These 21 mutual aid talkgroups and 10 conventional mutual channels are programmed into most, if not all, of the over forty thousand 800 MHz radios that utilize the statewide Palmetto 800 Network or one of the eight local government trunked radio systems. An additional 10 mutual aid talkgroups are available for law enforcement agencies. These 800 MHz talkgroups and channels allow for cross-discipline and cross-jurisdiction interoperability.

In South Carolina 48% of law enforcement agencies, 78% of fire departments and 70% emergency medical services continue to utilize VHF or UHF frequencies for their primary dispatch channel, To provide these agencies with basic interoperability with those agencies who utilize 800 MHz, an 800 MHz base station has been installed in each of the 46 county primary 911 Centers in the state. An 800 MHz base station has also been installed in each county Emergency Operations Center. County Sheriff Departments, City Police Departments and County Coroners have been issued 800 MHz portable radios. EMS operators have been issued one hundred sixty 800 MHz mobile radios and one hundred 800 MHz portable radios. All county hospital emergency rooms have been equipped with 800 MHz base stations for patient coordination and emergency communications. Thirteen fire departments along hurricane evacuation routes have been issued 800 MHz portable radios. All of the above radios operate on the Palmetto 800 Mutual Aid Talkgroups as well as the International and South Carolina 800 MHz tactical interoperability channels.

Also, to provide conventional 800 MHz interoperability in each county, 800 MHz repeaters have been installed at eighty-nine sites statewide. These are available

to first responders for interoperability at incidents and they also may be used for special events that require interoperability.

The State maintains a cache of 200 portable 800 MHz radios 25 VHF radios and 25 UHF radios for temporary assignment as needed for disaster response and special events.

To help reduce the first responder subscriber costs for the Palmetto 800 Network, the State Legislature recently provided funding that will reduce these costs by 33%. Grants will also be made available to the local government 800 MHz systems to assist them with Palmetto 800 Network interoperability.

South Carolina's interoperability challenges include funding for the purchase of interoperable equipment and funding to cover recurring cost like maintenance. As a home rule state each political subdivision in South Carolina is allowed to individually determine the level of interoperability they wish to participate in. Like other States, South Carolina faces the challenges of a variety of disparate system in UHF, VHF and 800 across the state.

Current Interoperability Initiatives

- South Carolina is working with the State of North Carolina to provide communications interoperability through the use of consoles in North Carolina that will be linked to the Palmetto 800 Network and the exchange of radio IDs between systems.
- South Carolina is exploring the use of bridge technology to link between various systems for interoperability. Linking capability is currently being initiated to link the Palmetto 800 Network with the State of Georgia gateway.
- A project to provide portable 800 MHz repeater systems to designated fire departments is underway. These will be utilized to restore service if the conventional fixed 800 MHz mutual aid repeaters are out of service due to a disaster.
- The Palmetto 800 Network continues to expand its coverage and user base. Two new sites are under construction and subscriber units are being added at an average rate of 100 per month.

South Carolina Council of Governments

In 1967 South Carolina Governor Robert E. McNair signed legislation dividing the state into ten official planning districts, marking the birth of the Palmetto State's Councils of Governments (COGs). The Council of Governments has become a valuable resource for area local governments in the areas of public administration, planning, information systems and technology, grants, workforce development and services to the elderly population. While assistance to local government remains as the Council's first priority, the private sector also benefits from services designed to enhance the region's economic environment. These efforts include

public/private partnerships in support of economic development, economic research and analysis, and small business lending programs.

In the 1970's the COG planning districts became the bases for the VHF and UHF law enforcement radio plan for mutual aid communications. This system included a base station in every Sheriff Department and some Police Departments. Where needed for coverage, repeaters were installed and maintained by the South Carolina Highway Department. Some of the resources remain in service today and are utilized by those agencies who continue to use VHF and UHF frequencies.

Cross Discipline Coordination

All of the Palmetto 800 Mutual Aid Talkgroups and the State's conventional 800MHz mutual aid channels/repeaters are available for cross discipline utilization. This cross discipline use often occurs during exercises, large scale special events, major accidents and disasters. When needed, each discipline can be assigned a separate talkgroup with a common talkgroup assigned for command and control activities. Coordination for the assignment of mutual aid talkgroups is performed by the State Warning Point. Cross-discipline coordination is emphasized in the communications interoperability training classes.

Region 37 (South Carolina) 700 MHz Regional Planning Status

The Region 37 Chairperson for 700 MHz planning is:

Mr. William Winn
Beaufort County Emergency Management
wwinn@bcgov.net
843-470-3100

Two organizational meetings have been held and the bylaws and technical committees formed. The bylaws committee chairperson has completed a draft of the bylaws and will be presenting it to the full committee at the next meeting. The technical committee is waiting on FCC guidelines for the new 700 MHz channel plan and will proceed with their planning when the guidelines are made available.

800 MHz Rebanding

The State of South Carolina has completed its PFA (Planning Funding Agreement) negotiations with Sprint/NEXTEL and is currently getting signatures on the documents from the licensees that share the South Carolina Statewide Radio System with the State, including Augusta, GA. Most of the eight (8) local government 800 MHz radio systems have completed their PFA's and are moving forward with the planning phase.

Narrow-banding

Private land mobile radio (LMR) systems, including state and local public safety systems, use blocks of radio spectrum called channels. Historically, LMR systems have used 25 kHz-wide channels. In December 2004, the Federal Communications Commission mandated that all private LMR users operating below 512 MHz move to 12.5 kHz narrowband voice channels and highly efficient data channel operations by January 1, 2013. This migration complements a National Telecommunications and Information Administration mandate for more rapid Federal agency migration to 12.5 kHz narrowband operation by January 1, 2008. The earlier Federal deadline effects State and local FCC licensees that interface or share frequencies with federal radio systems.

To phase in the migration deadline of January 1, 2013, the FCC has established interim deadlines. The first important deadline is January 1, 2011, after which: The FCC will not grant applications for new voice operations or applications to expand the authorized contour of existing stations that use 25 kHz channels. Only narrowband authorizations will be granted. The FCC will prohibit manufacture or importation of new equipment that operates on 25 kHz channels. This will reduce the availability of new equipment for legacy radio systems and will affect how agencies maintain and upgrade older systems.

To prepare for the migration, South Carolina public safety agencies should begin assessing their radio systems and planning for replacements or upgrades. They should inventory their current equipment to ascertain what can be converted to 12.5 kHz and what will need to be replaced before January 1, 2013. Most new equipment has the capability for both 25 kHz and 12.5 kHz operation because any VHF/UHF radio equipment accepted by the FCC after February 14, 1997 had to have 12.5 kHz capability. The 2.5 kHz narrowband equipment is available in both conventional analog FM and digital formats (such as Project 25), so narrowband conventional FM systems will be compliant. Local governments should develop contingency plans to accommodate system changes for both public safety and nonpublic safety systems.

COUNTY PRIMARY DISPATCH RADIO BANDS
Sorted by Population

COUNTY	Est. Pop. July 1, 2005	LAW DISPATCH	FIRE DISPATCH	EMS DISPATCH
Greenville County	407,383	PAL800/UHF	VHF	UHF
Richland County	340,078	PAL800	PAL800	PAL800
Charleston County	330,368	800	800	800
Spartanburg County	266,809	PAL800	VHF	PAL800
Lexington County	235,272	PAL800	PAL800	PAL800
Horry County	226,992	800	800	800
York County	190,097	800	800	800
Anderson County	175,514	PAL800	VHF	VHF/PAL800
Berkeley County	151,673	PAL800	VHF	VHF
Aiken County	150,181	PAL800	UHF	UHF
Beaufort County	137,849	800	800	800
Florence County	131,097	800	800	800
Pickens County	113,575	PAL800	VHF	VHF
Dorchester County	112,858	PAL800	VHF	PAL800
Sumter County	105,517	800	800	800
Orangeburg County	92,167	PAL800	VHF	PAL800
Laurens County	70,293	PAL800	VHF	VHF
Oconee County	69,577	UHF	VHF	VHF
Greenwood County	67,979	UHF	VHF	VHF
Darlington County	67,346	PAL800	VHF	VHF
Lancaster County	63,113	VHF	VHF	VHF
Georgetown County	60,983	PAL800	PAL800	PAL800
Kershaw County	56,486	VHF	VHF	VHF
Cherokee County	53,844	UHF	VHF	VHF
Chesterfield County	43,435	PAL800	VHF	VHF
Colleton County	39,605	UHF/PAL800	VHF	VHF
Newberry County	37,250	UHF	VHF	VHF
Williamsburg County	35,395	PAL800	PAL800	VHF
Marion County	34,904	UHF	VHF	VHF
Clarendon County	33,363	PAL800	VHF	VHF
Chester County	33,228	PAL800	VHF	VHF
Dillon County	30,974	PAL800	VHF	VHF
Union County	28,539	VHF	VHF	VHF
Marlboro County	28,021	UHF	VHF	VHF
Abbeville County	26,133	PAL800	VHF	PAL800
Edgefield County	25,528	UHF	VHF	VHF
Fairfield County	24,047	PAL800	VHF	VHF
Barnwell County	23,345	UHF	VHF	VHF
Jasper County	21,398	PAL800	VHF	VHF
Hampton County	21,329	UHF	VHF	VHF
Lee County	20,638	PAL800	VHF	VHF
Saluda County	18,895	UHF	VHF	VHF
Bamberg County	15,880	PAL800	VHF	VHF
Calhoun County	15,100	UHF	VHF	VHF
Allendale County	10,917	PAL800	VHF	VHF
McCormick County	10,108	800	800	800

Public Safety Agencies
Primary Frequency Band Usage

800 MHz - 42% **UHF – 20%** **VHF – 38%**

Counties

	800 MHz	UHF	VHF
LAW	**24 Counties 52%**	**18 Counties 39%**	**4 Counties 9%**
FIRE	**10 Counties 22%**	**1 County 2%**	**35 Counties 76%**
EMS	**14 Counties 30%**	**1 County 3%**	**31 Counties 67 %**

Cities above 20,000 Population

	800 MHz	UHF	VHF
LAW	**8 Cities 53%**	**4 Cities 27%**	**3 Cities 20%**
FIRE	**8 Cities 53%**	**4 Cities 27%**	**3 Cities 20%**

Primary Frequency Band by Population Served

	800 MHz	UHF	VHF
All	**57%**	**11%**	**32%**
Law	**71%**	**25%**	**4%**
Fire	**42%**	**4%**	**54%**
EMS	**54%**	**2%**	**44%**

Interoperability Frequency Plan

FREQ Subscriber Unit	FREQ Subscriber Unit	BASE, MOBILE, OR FIXED (CONTROL)	ELIGIBILITY / PRIMARY USE	COMMON NAME
RECEIVE	TRANSMIT			

MHz	MHz	FCC 30 MHz Public Safety Band		
39.4600	SIMPLEX	Base-Mobile	Law Enforcement	**LLAW1**
39.4800	SIMPLEX	Base-Mobile	**Fire Proposed**	**LFIRE2**
45.8600	SIMPLEX	Base-Mobile	Law Enforcement	**LLAW3**
45.8800	SIMPLEX	Base-Mobile	Fire	**LFIRE4**
42.1000	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**LTAC101**
42.2600	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**LTAC102**
47.5000	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**LTAC103**

MHz	MHz	FCC 150 - 162 MHz Public Safety Band		
155.7525	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VCALL10**
151.1375	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC11**
154.4525	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC12**
158.7375	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC13**
159.4725	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC14**
154.2800	SIMPLEX	Base-Mobile	Fire	**VFIRE21**
154.2650	SIMPLEX	Base-Mobile	Fire	**VFIRE22**
154.2950	SIMPLEX	Base-Mobile	Fire	**VFIRE23**
154.2725	SIMPLEX	Base-Mobile	Fire	**VFIRE24**
154.2875	SIMPLEX	Base-Mobile	Fire	**VFIRE25**
154.3025	SIMPLEX	Base-Mobile	Fire	**VFIRE26**
155.3400	SIMPLEX	Base-Mobile	EMS	**VMED28**
155.3475	SIMPLEX	Base-Mobile	EMS	**VMED29**
155.4750	SIMPLEX	Base-Mobile	Law Enforcement	**VLAW31**
155.4825	SIMPLEX	Base-Mobile	Law Enforcement	**VLAW32**
155.9550	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC111**
155.1600	SIMPLEX	Base-Mobile	Any Public Safety Eligible	**VTAC112**
155.5350	SIMPLEX	Base-Mobile	Any Public Safety Eligible – South Carolina Region 3	**VTAC113**
155.5500	SIMPLEX	Base-Mobile	Any Public Safety Eligible – South Carolina Region 6	**VTAC114**
155.0100	SIMPLEX	Base-Mobile	Any Public Safety Eligible – South Carolina Region 8	**VTAC115**
155.0700	SIMPLEX	Base-Mobile	Any Public Safety Eligible – South Carolina Region 9	**VTAC116**

936

MHz	MHz	FCC 450 - 470 MHz Public Safety Band		
453.2125	458.2125	Fixed-Mobile	Any Public Safety Eligible	**UCALL40**
	SIMPLEX	Base-Mobile		**UCALL40D**
453.4625	458.4625	Fixed-Mobile	Any Public Safety Eligible	**UTAC41**
	SIMPLEX	Base-Mobile		**UTAC41D**
453.7125	458.7125	Fixed-Mobile	Any Public Safety Eligible	**UTAC42**
	SIMPLEX	Base-Mobile		**UTAC42D**
453.8625	458.8625	Fixed-Mobile	Any Public Safety Eligible	**UTAC43**
	SIMPLEX	Base-Mobile		**UTAC43D**
460.2500	465.2500	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 1	**UCALL141**
	SIMPLEX	Base-Mobile		**UCALL141D**
453.4500	458.4500	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 2	**UTAC142**
	SIMPLEX	Base-Mobile		**UTAC142D**
460.0500	465.0500	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 4	**UTAC143**
	SIMPLEX	Base-Mobile		**UTAC143D**
453.1500	458.1500	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 5	**UTAC144**
	SIMPLEX	Base-Mobile		**UTAC144D**
460.2500	465.2500	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 7	**UTAC145**
	SIMPLEX	Base-Mobile		**UTAC145D**
460.2750	465.2750	Fixed-Mobile	Any Public Safety Eligible – South Carolina Region 10	**UTAC146**
	SIMPLEX	Base-Mobile		**UTAC146D**

937

CHANNEL Subscriber	CHANNEL Subscriber	BASE, MOBILE, OR FIXED CONTROL	ELIGIBILITY / PRIMARY USE	COMMON NAME
RECEIVE	TRANSMIT			

CHANNEL	CHANNEL	FCC 700 MHz Public Safety Band (TV 63 + 68)		
39-40	999-1000	Fixed-Mobile	Calling Channel	7CALL50
	SIMPLEX	Base-Mobile		7CALL50D
23 - 24	983-984	Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC51
	SIMPLEX	Base-Mobile		7TAC51D
103-104	1063-1064	Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC52
	SIMPLEX	Base-Mobile		7TAC52D
183-184	1143-1144	Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC53
	SIMPLEX	Base-Mobile		7TAC53D
263-264	1223-1 224	Fixed-Mobile	General Public Safety Service (secondary trunked)	7TAC54
	SIMPLEX	Base-Mobile		7TAC54D
119-120	1079-1 080	Fixed-Mobile	General Public Safety Service	7TAC55
	SIMPLEX	Base-Mobile		7TAC55D
199-200	1159-1160	Fixed-Mobile	General Public Safety Service	7TAC56
	SIMPLEX	Base-Mobile		7TAC56D
31 9-320	1279-1280	Fixed-Mobile	Other Public Service	7GTAC57
	SIMPLEX	Base-Mobile		7GTAC57D
303-304	1263-1 264	Fixed-Mobile	Mobile Repeater (M03 Use Primary)	7MOB59
	SIMPLEX	Base-Mobile		7MOB59D
223-224	1183-1184	Fixed-Mobile	Law Enforcement	7LAW61
	SIMPLEX	Base-Mobile		7LAW61D
239-240	1199-1200	Fixed-Mobile	Law Enforcement	7LAW62
	SIMPLEX	Base-Mobile		7LAW62D
143-144	1103-1104	Fixed-Mobile	Fire	7FIRE63
	SIMPLEX	Base-Mobile		7FIRE63D
159-160	1119-1120	Fixed-Mobile	Fire	7FIRE64
	SIMPLEX	Base-Mobile		7FIRE64D
63-64	1023-1024	Fixed-Mobile	EMS	7MED65
	SIMPLEX	Base-Mobile		7MED65D
79-80	1039-1040	Fixed-Mobile	EMS	7MED66
	SIMPLEX	Base-Mobile		7MED66D
279-280	1239-1240	Fixed-Mobile	Mobile Data	7DATA69
	SIMPLEX	Base-Mobile		7DATA69D

938
939
940
941
942
943

CHANNEL	CHANNEL	FCC 700 MHz Public Safety Band (TV 64 + 69)		
681-682	1641-1642	Fixed-Mobile	Calling Channel	**7CALL70**
	SIMPLEX	Base-Mobile		**7CALL70D**
657-658	161 7-1 618	Fixed-Mobile	General Public Safety Service (secondary trunked)	**7TAC71**
	SIMPLEX	Base-Mobile		**7TAC71D**
737-738	1697-1 698	Fixed-Mobile	General Public Safety Service (secondary trunked)	**7TAC72**
	SIMPLEX	Base-Mobile		**7TAC72D**
817-818	1777-1 778	Fixed-Mobile	General Public Safety Service (secondary trunked)	**7TAC73**
	SIMPLEX	Base-Mobile		**7TAC73D**
897-898	1857-1858	Fixed-Mobile	General Public Safety Service (secondary trunked)	**7TAC74**
	SIMPLEX	Base-Mobile		**7TAC74D**
761-762	1721-1722	Fixed-Mobile	General Public Safety Service	**7TAC75**
	SIMPLEX	Base-Mobile		**7TAC75D**
841-842	1801-1802	Fixed-Mobile	General Public Safety Service	**7TAC76**
	SIMPLEX	Base-Mobile		**7TAC76D**
937-938	1897-1898	Fixed-Mobile	Other Public Service	**7GTAC77**
	SIMPLEX	Base-Mobile		**7GTAC77D**
881-882	1841-1842	Fixed-Mobile	Mobile Repeater (M03 Use Primary)	**7MOB79**
	SIMPLEX	Base-Mobile		**7MOB79D**
801-802	1761-1762	Fixed-Mobile	Law Enforcement	**7LAW81**
	SIMPLEX	Base-Mobile		**7LAW81D**
857-858	181 7-1 818	Fixed-Mobile	Law Enforcement	**7LAW82**
	SIMPLEX	Base-Mobile		**7LAW82D**
721-722	1681-1682	Fixed-Mobile	Fire	**7FIRE83**
	SIMPLEX	Base-Mobile		**7FIRE83D**
777-778	1737-1 738	Fixed-Mobile	Fire	**7FIRE84**
	SIMPLEX	Base-Mobile		**7FIRE84D**
641-642	1601-1602	Fixed-Mobile	EMS	**7MED86**
	SIMPLEX	Base-Mobile		**7MED86D**
697-698	1657-1 658	Fixed-Mobile	EMS	**7MED87**
	SIMPLEX	Base-Mobile		**7MED87D**
921-922	1881-1882	Fixed-Mobile	Mobile Data	**7DATA89**
	SIMPLEX	Base-Mobile		**7DATA89D**

FREQ Subscriber	FREQ Subscriber	BASE, MOBILE,OR FIXED CONTROL	ELIGIBILITY / PRIMARY USE	COMMONNAME
RECEIVE	TRANSMIT			

MHz	MHz	FCC 800 MHz NPSPAC Band (Post-Rebanding)		
851.0125	806.0125	Fixed-Mobile	Any Public Safety Eligible	8CALL90
	SIMPLEX	Base-Mobile		8CALL90D
851.5125	806.5125	Fixed-Mobile	Any Public Safety Eligible	8TAC91
	SIMPLEX	Base-Mobile		8TAC91D
852.0125	807.0125	Fixed-Mobile	Any Public Safety Eligible	8TAC92
	SIMPLEX	Base-Mobile		8TAC92D
852.5125	807.5125	Fixed-Mobile	Any Public Safety Eligible	8TAC93
	SIMPLEX	Base-Mobile		8TAC93D
853.0125	808.0125	Fixed-Mobile	Any Public Safety Eligible	8TAC94
	SIMPLEX	Base-Mobile		8TAC94D
851.2250	806.2250	Fixed-Mobile	Any Public Safety Eligible	8TAC191
	SIMPLEX	Base-Mobile		8TAC191D
851.6875	806.6875	Fixed-Mobile	Any Public Safety Eligible	8TAC192
	SIMPLEX	Base-Mobile		8TAC192D
852.7750	807.7750	Fixed-Mobile	Any Public Safety Eligible	8TAC193
	SIMPLEX	Base-Mobile		8TAC193D
853.6375	808.6375	Fixed-Mobile	Any Public Safety Eligible	8TAC194
	SIMPLEX	Base-Mobile		8TAC194D
853.9750	808.9750	Fixed-Mobile	Any Public Safety Eligible	8TAC195
	SIMPLEX	Base-Mobile		8TAC195D

Common Channel Names

At the present time South Carolina uses the following channel name format for the nationwide 800 MHz NPSPAC calling and tactical channels: ICALL, ITAC1, ITAC2, ITAC3 and ITAC4. For the statewide 800 MHz tactical channels the state now uses the following format: SCTAC1, SCTAC2, SCTAC3, SCTAC4 and SCTAC5. These name formats will be changed to follow the above standard naming format during the 800 MHz rebanding process.

For the VHF and UHF radio bands the standard naming format can be implemented as radios are purchased or reprogrammed. However, most of this will not be accomplished until the transition to narrowband is competed.

4.1 Governance

The Counter Terrorism Coordinating Council (CTCC) was established under authority granted in Executive Order 2003-02 issued by the Governor of South Carolina on January 16, 2003. This order directed the South Carolina Law Enforcement Division (SLED) to be the operational authority and lead state agency for counter-terrorism efforts and to create task forces or coordinating councils as deemed appropriate. The mission of the CTCC is to Support and advise the State Law Enforcement Division concerning its counter terrorism mission in an effort to

facilitate and foster cooperation and coordination among various governmental and private entities and disciplines both statewide and regionally. The mission of the CTCC is to Support and advise the State Law Enforcement Division concerning its counter terrorism mission in an effort to facilitate and foster cooperation and coordination among various governmental and private entities and disciplines both statewide and regionally.

This shall be accomplished through:

- Planning
- Training/exercises
- Determining required resources including equipment and location
- Grant funding recommendations
- Information sharing
- Mutual aid agreements
- Establishing best practices
- Other activities consistent with furthering the counter terrorism effort.

The State CTCC was established via Executive Order to maximize local involvement and streamline readiness and communication procedures. The council was also created to develop a network for distributing federal funds to fulfill statewide missions. Other than those specified functions, the CTCC serves mainly as an advisory committee to the State Homeland Security Advisor and does not have any legislative authority. The State CTCC meets at least annually. The State CTCC also has several Committees and Regional Councils which meet on a more regular basis. The State CTCC along with its Grants Committee does have established operating principles and decision making procedures. These principles and procedures have been in place to support grant funding since 2003.

The State Counter Terrorism Coordinating Council (CTCC) Communications Committee has been designated as the formal interoperable governance structure. This committee has been in existence since 2005. This subcommittee will make recommendations back to the State CTCC regarding appropriate changes and modifications to existing state laws, policies and regulations to successfully implement and sustain PSIC. The Communications Committee was created due to the identified gap in communications interoperability throughout the state specified during the Statewide Capability Assessment conducted in early 2005. Currently serving on the State CTCC Communications Committee are:

William Winn – Beaufort County Emergency Management – Co-Chair
George Crouch – Division of the State CIO – Co-Chair
Mike Seinfeld – Irmo Fire Dept.
Tommy Sullivan – Florence County Emergency Management
Lynn Skipper – Sumter County Police
Bobby Wilson – Aiken County Sheriff's Department
Wayne Plemmons – Power Utility

Tim Simmons – State Law Enforcement Division
Cliff Parker – Charleston County Emergency Medical Service
Ex-Officio: Buddy Jordan – Division of the State CIO

South Carolina has several multi-discipline committees whose key staff members collaborate, on regular bases, on many levels. The Counter Terrorism Coordinating Council's Communications Committee, the South Carolina 800 MHz Trunking Advisory Committee, the Palmetto 800 User's Group and the Local Government Communications Association all provide direction and input on communications interoperability. *(See Exhibits 1-4)*

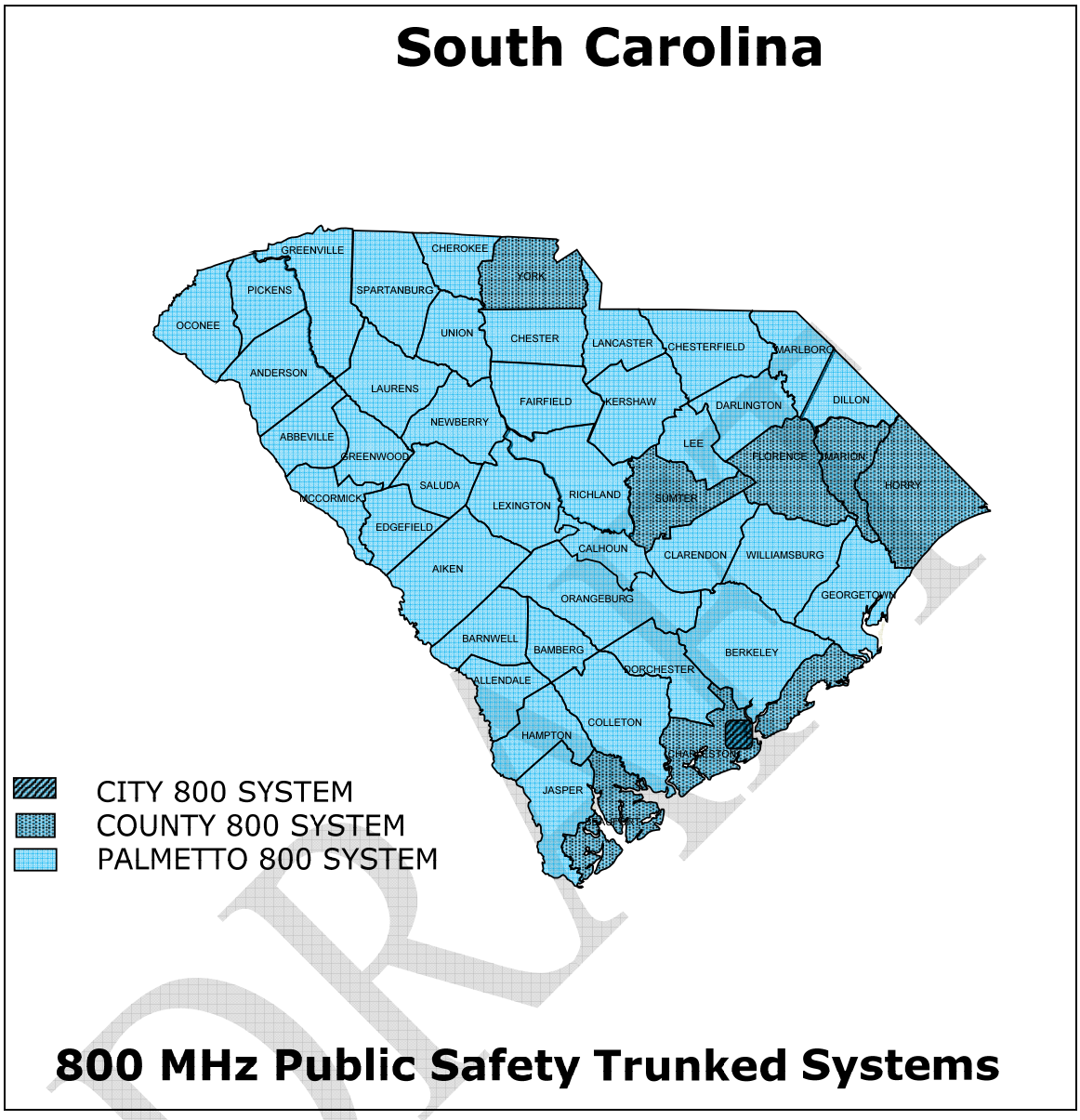
An effort will be made to establish a legislative review subcommittee to review the existing state laws that relate to interoperable communications. This subcommittee will make recommendations back to the State CTCC regarding appropriate changes and modifications to existing state laws, policies and regulations to successfully implement and sustain PSIC.

4.2 Technology

South Carolina Public Safety 800 MHz Systems

System	*Service Area*	*Number of Repeater Sites*	*Number of Agencies Served*	*Number of Users for Primary Service*
STATEWIDE				
Palmetto 800	Statewide	67	350+	22,000 +
COUNTY				
Beaufort 800	Beaufort County	5	80+	2,000
Charleston 800	Charleston County	7	110	6,500
Florence 800	Florence County	4	57	1,900
Horry 800	Horry County	6	65+	1,700
Marion 800	Marion County	3	16	400
Sumter 800	Sumter County	2	4	800
York 800	York County	9	40	2,500
CITY				
Charleston 800	City of Charleston	1	6	4,900

Between the statewide Palmetto 800 Network and the eight local government 800 systems there are 104 trunked repeater sites in South Carolina. These combined systems serve over 40,000 public safety, government, private first responder and utility users.


South Carolina
GREENVILLE
CHEROKEE
YORK
PICKENS
SPARTANBURG
OCONEE
UNION
CHESTER
LANCASTER
CHESTERFIELD
MARLBORO
ANDERSON
LAURENS
FAIRFIELD
KERSHAW
DARLINGTON
DILLON
NEWBERRY
ABBEVILLE
LEE
GREENWOOD
FLORENCE
MARION
HORRY
SALUDA
MCCORMICK
RICHLAND
SUMTER
LEXINGTON
EDGEFIELD
CALHOUN
CLARENDON
WILLIAMSBURG
AIKEN
ORANGEBURG
GEORGETOWN
BARNWELL
BAMBERG
BERKELEY
DORCHESTER
ALLENDALE
COLLETON
HAMPTON
CHARLESTON
JASPER
CITY 800 SYSTEM
COUNTY 800 SYSTEM
PALMETTO 800 SYSTEM
800 MHz Public Safety Trunked Systems

1036

4.2.1 Palmetto 800 Network

The Palmetto 800 Network is a statewide 800 MHz radio and mobile data network that is a cost sharing public/private partnership between the state government, local governments, power utilities and Motorola, Inc. The system is a Motorola SmartZone trunked system with 69 transmitter sites across South Carolina and Richmond County, Georgia. The goal of the shared system is to reduce costs and improve interoperability for all system users.

In operation since 1992, the original state contract was with SCANA Communications, Inc. In 2001, Motorola purchased the primary ownership and management of the system under a contract with the Division of the State Chief Information Officer (CIO).

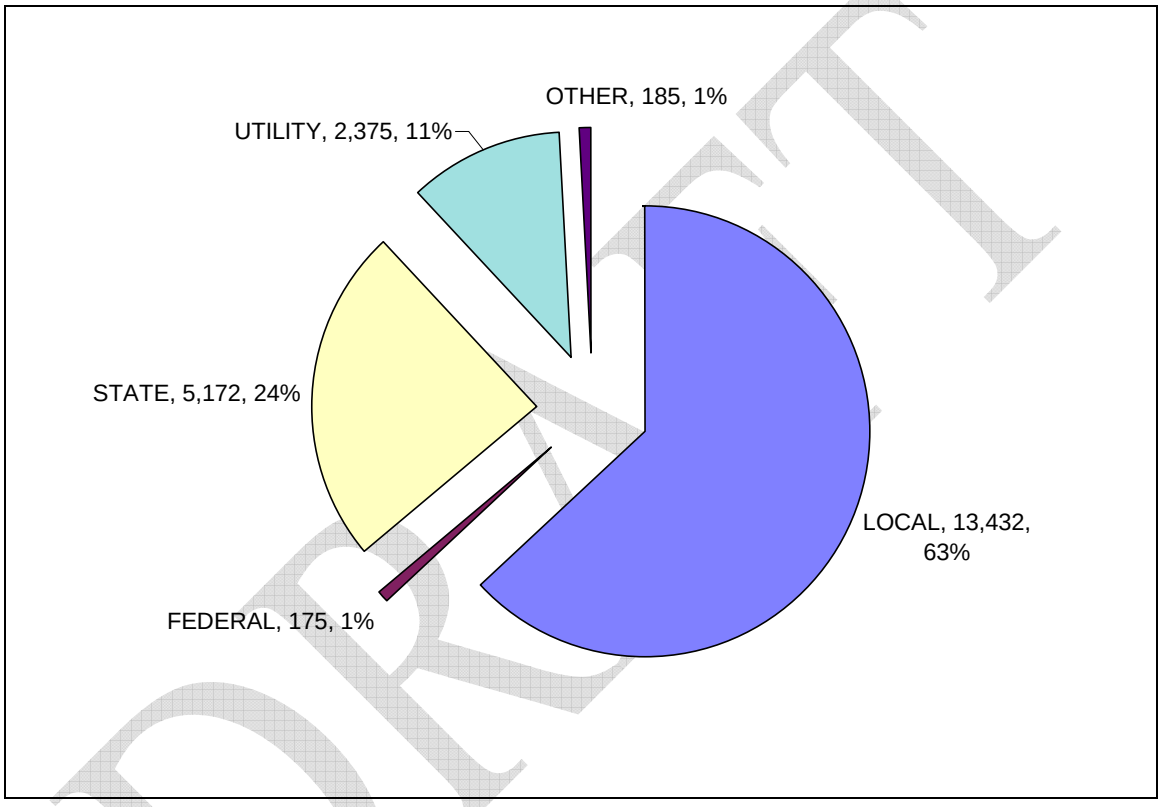
The Palmetto 800 Network has continued to grow and today is one of the largest shared statewide public safety radio systems in the nation with over 22,437 voice users and 1,047 mobile data system users.

Over 350 different agencies representing state government, federal government, local government, law enforcement agencies, fire services, EMS services and power utilities in South Carolina, North Carolina and Georgia currently participate in this shared statewide 800 MHz radio system.

Over 94 percent of South Carolina's population is serviced by sheriff's departments with access to the Palmetto 800 MHz System.

South Carolina continues to receive top rankings for its interoperability efforts with the statewide shared public safety system.

Palmetto 800 Network

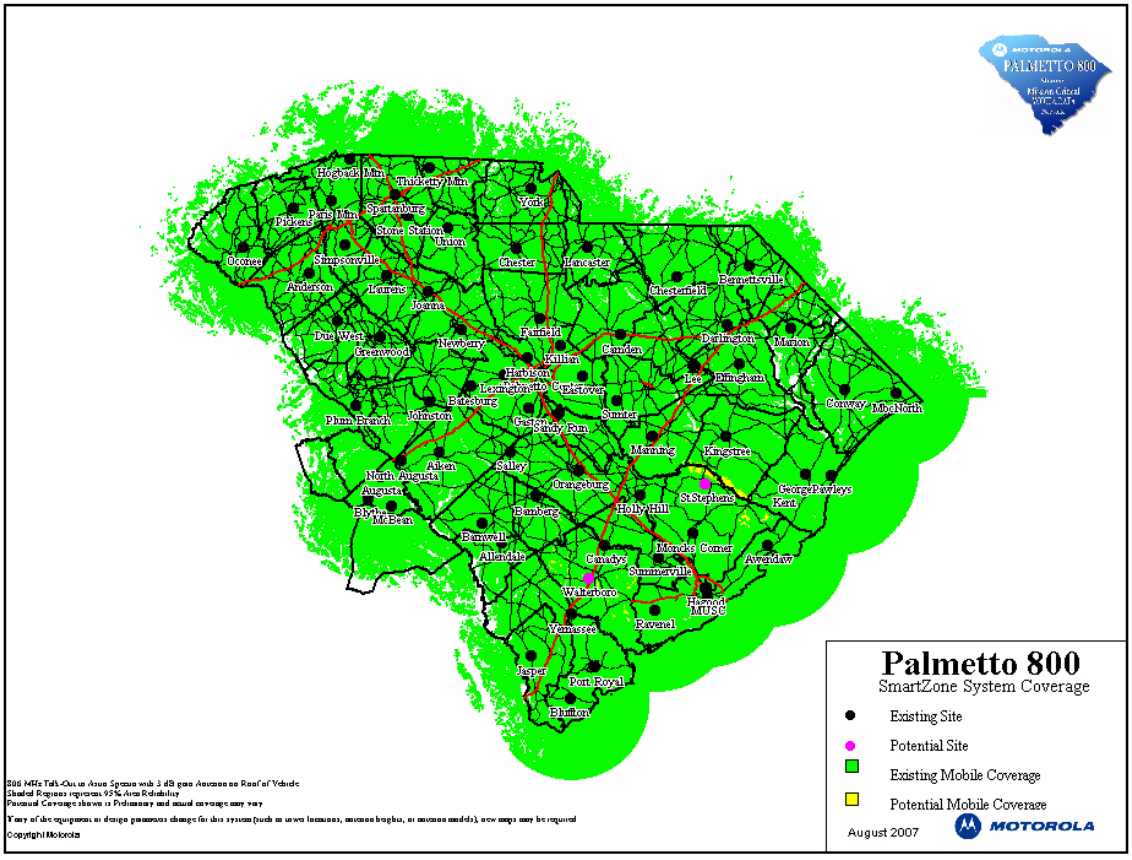


Users by Type

Palmetto 800 Network - Mobile Coverage

Below is a predicted coverage map for the Palmetto 800 Network. System coverage maps are based on 95% analog predicted coverage. Motorola's contract with South Carolina requires that system coverage maps be depicted with 95% analog predicted coverage reliability. Areas shown in white on the coverage maps may still have radio coverage but the predicted reliability is below 95%.

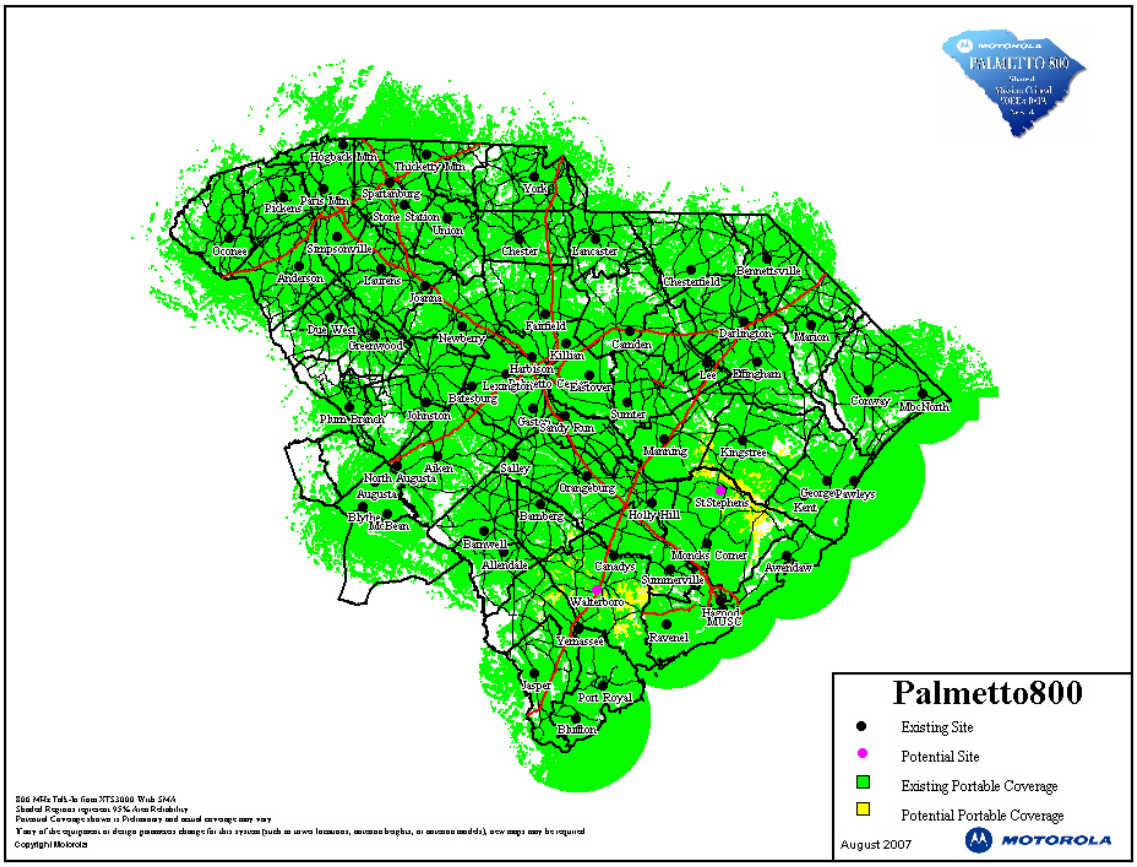
Palmetto 800 Network
Mobile Coverage Map



Palmetto 800 Network - Portable Coverage

While the Palmetto 800 Network provides extensive statewide mobile coverage it also provides considerable outside portable coverage as shown on the map below.

Palmetto 800 Network
Outside Portable Coverage Map



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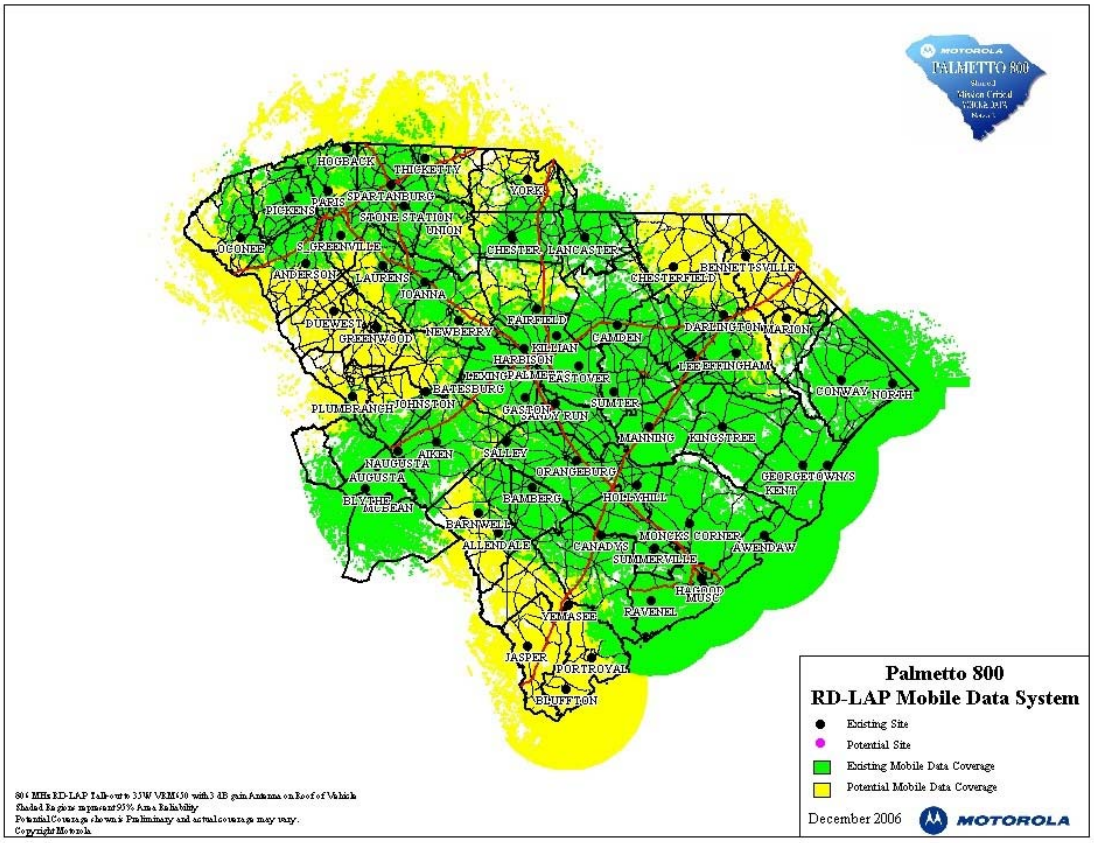
Palmetto 800 Network - Mobile Data Coverage

The Palmetto 800 Network operates a wide area DataTac 800 MHz mobile data network with over 1,000 local government and utility mobile data subscribers. The system provides 19.2 kb service for NCIC queries, CAD dispatch, text messaging etc. Expansion of the system will depend on additional subscribers and funding for mobile date terminals. Several sites now provide High Performance Data (HPD) service and this service will be expanded to other sites in the future.

Palmetto 800 Network
Mobile Data Coverage Map



Palmetto 800 Network – Mutual Aid Talkgroups

To support statewide interoperability, all users of the Palmetto 800 Network should have all Regional Mutual Aid, Statewide Mutual Aid, ITAC and SCTAC talkgroups/channels programmed into their 800 MHz radios. Law Enforcement Agencies should also include the Law Enforcement Mutual Aid Talkgroups.

REGIONAL MUTUAL AID TALKGROUPS	NAME	HP TROOP
CALLING CHANNEL	**SCCALL**	**Statewide**
REGION 1 COMMON *Counties: Richland, Lexington, Kershaw, Lee Sumter, Clarendon*	**SCRG01**	**Troop #1**
REGION 2 COMMON *Counties: Abbeville, Laurens, Greenwood, Newberry, Saluda, Edgefield, McCormick*	**SCRG02**	**Troop #2**
REGION 3 COMMON *Counties: Spartanburg,, Greenville, Anderson, Pickens, Oconee*	**SCRG03**	**Troop #3**
REGION 4 COMMON *Counties: York, Cherokee, Union, Chester, Lancaster, Fairfield, Chesterfield*	**SCRG04**	**Troop #4**
REGION 5 COMMON *Counties: Marlboro, Darlington, Florence, Dillon, Marion, Horry, Georgetown, Williamsburg*	**SCRG05**	**Troop #5**
REGION 6 COMMON *Counties: Colleton, Jasper, Beaufort, Berkeley, Dorchester, Charleston*	**SCRG06**	**Troop #6**
REGION 7 COMMON *Counties: Aiken, Barnwell, Allendale, Hampton, Bamberg, Orangeburg, Calhoun*	**SCRG07**	**Troop #7**
REGION 8 COMMON	**SCRG08**	**Assignable**
REGION 9 COMMON	**SCRG09**	**Assignable**
REGION 10 COMMON	**SCRG10**	**Assignable**

STATEWIDE MUTUAL AID TALKGROUPS	NAME
South Carolina CALLING CHANNEL *Statewide calling channel, monitored by EMD and SHP.*	**SCCALL**
CHANNEL 1 *Pre-assigned for Law Enforcement Operations.*	**SCMA01**
CHANNEL 2 *Pre-assigned for Fire Operations.*	**SCMA02**
CHANNEL 3 *Pre-assigned for EMS Operations.*	**SCMA03**
CHANNEL 4 *Pre-assigned for Command & Control Operations.*	**SCMA04**
CHANNEL 5	**SCMA05**
CHANNEL 6	**SCMA06**
CHANNEL 7	**SCMA07**
CHANNEL 8	**SCMA08**
CHANNEL 9	**SCMA09**
CHANNEL 10	**SCMA10**
South Carolina AIR TO GROUND	**AIR-GRD**
Dynamic Regrouping	**Dyn Reg**

The SCCALL is monitored by SCEMD'S State Warning Point as well as other dispatch centers around the state. The Mutual Aid Talkgroups are available for use during emergencies or for special events. The use and assignment of the Mutual Aid Talkgroups is coordinated by the SCEMD's State Warning Point. Dynamic Regrouping allows Motorola remotely create or assign a talkgroup to the Dyn Reg position in the radio. It is highly recommended that this feature be programmed in to all radios with access to the statewide system.

LAW ENFORCEMENT MUTUAL AID TALKGROUPS	NAME	HP TROOP
LAW ENFORCEMENT CALL	**LECALL**	**Statewide**
LAW ENFORCEMENT COMMON 1 *Counties: Richland, Lexington, Kershaw, Lee Sumter, Clarendon*	**LEC01**	**Troop #1**
LAW ENFORCEMENT COMMON 2 *Counties: Abbeville, Laurens, Greenwood, Newberry, Saluda, Edgefield, McCormick*	**LEC02**	**Troop #2**
LAW ENFORCEMENT COMMON 3 *Counties: Spartanburg,, Greenville, Anderson, Pickens, Oconee*	**LEC03**	**Troop #3**
LAW ENFORCEMENT COMMON 4 *Counties: York, Cherokee, Union, Chester, Lancaster, Fairfield, Chesterfield*	**LEC04**	**Troop #4**
LAW ENFORCEMENT COMMON 5 *Counties: Marlboro, Darlington, Florence, Dillon, Marion, Horry, Georgetown, Williamsburg*	**LEC05**	**Troop #5**
LAW ENFORCEMENT COMMON 6 *Counties: Colleton, Jasper, Beaufort, Berkeley, Dorchester, Charleston*	**LEC06**	**Troop #6**
LAW ENFORCEMENT COMMON 7 *Counties: Aiken, Barnwell, Allendale, Hampton, Bamberg, Orangeburg, Calhoun*	**LEC07**	**Troop #7**
LAW ENFORCEMENT COMMON 8 *Assigned to the Highway 278 Hurricane evacuation route in Beaufort, Jasper, Hampton and Allendale counties.*	**LEC08**	**Special**
LAW ENFORCEMENT COMMON 9 *Assignable for special events/emergencies (coordinate with Highway Patrol).*	**LEC09**	**Assignable**
LAW ENFORCEMENT COMMON 10 *Assignable for special events/emergencies (coordinate with Highway Patrol).*	**LEC10**	**Assignable**

The Law Enforcement Talkgroups are monitored by the South Carolina Department of Public Safety Dispatch Centers.

4.2.2 Conventional Mutual Aid 800 MHz Repeater Plan

In order to enhance communications interoperability, provide backup service for 800 MHz trunked systems and provide alternate 800 MHz service for emergencies and special events, the state and several counties have installed conventional (non-trunked) 800 MHz repeaters.

All eligible local, state and federal public safety authorities have access to the shared public safety conventional 800MHz radio repeaters. Public safety authorities are defined as entities licensed in the Public Safety Radio Services and the Special Emergency Radio Service and their federal counterparts.

The use of the Mutual Aid Channels in mobile and portable radios does not require explicit South Carolina Region 37 Committee approval or FCC licensing, but all usage must be in accordance with FCC rules, the South Carolina Regional Plan and all state and local agreements for use of the channels. Operation of fixed stations (base, mobile relay, RF control) on the Mutual Aid Channels requires coordination with the 800 MHz Advisory Committee, South Carolina Region 37 Committee approval and FCC licensing.

Where feasible, the State licensed shared public safety Mutual Aid Conventional 800MHz radio repeaters utilized one of the five South Carolina Tactical 800MHz frequencies or National Public Safety Tactical frequencies.

The South Carolina Tactical (SCTAC) frequencies are referred to by the following names:

Name	Mobile Receive	Mobile Transmit
SCTAC 1	866.2250	821.2250
SCTAC 2	866.6875	821.6875
SCTAC 3	867.7750	822.7750
SCTAC 4	868.6375	823.6375
SCTAC 5	868.9750	823.9750

These National Public Safety Tactical frequencies are referred to by the following names:

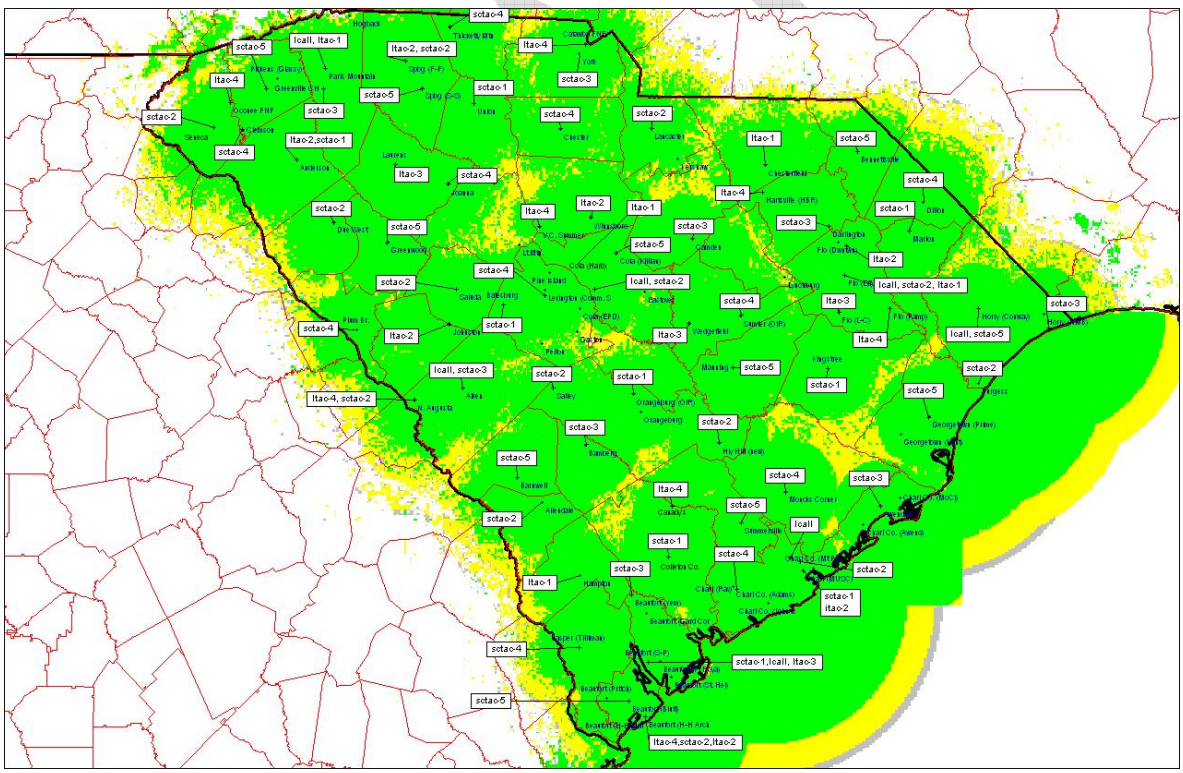
Name	Mobile Receive	Mobile Transmit
ICALL	866.0125	821.0125
ITAC 1	866.5125	821.5125
ITAC 2	867.0125	822.0125
ITAC 3	867.5125	822.5125
ITAC 4	868.0125	823.0125

All shared public safety conventional 800 MHz radio repeaters use a CCTSS tone of 156.7 Hz for decode and encode. The calling channel shall not use any means of encryption or other selective signaling techniques.

In major population areas, coastal counties and those counties where both the state and local government utilizes 800MHz, additional repeaters have been installed so as to provide multi-channel repeater service. Where possible, county wide mobile coverage should be provided. Where multiple repeaters are installed in a county, one should be on the ICALL frequency. This channel should be monitored by a public safety dispatch center.

The conventional mutual aid repeaters shall not be used for routine daily operations or as ongoing working channels by any agency. These channels shall be reserved for inter-agency communications, incidents requiring multi-agency participation and emergencies. These shall not be used for administrative or intra-agency communications unless so directed during a major emergency or disaster situation.

800 MHz Repeater Coverage Map



South Carolina Public Safety VHF and UHF Radio Systems

LAW ENFORCEMENT

VHF RADIO BAND FOR PRIMARY DISPATCH

COUNTY	LAW	PAL800 ACCESS
Kershaw County	VHF	YES
Lancaster County	VHF	YES
Union County	VHF	YES

UHF RADIO BAND FOR PRIMARYDISPATCH

COUNTY	LAW	PAL800 ACCESS
Barnwell County	UHF	YES
Calhoun County	UHF	YES
Cherokee County	UHF	YES
Edgefield County	UHF	YES
Greenville County	UHF	YES
Greenwood County	UHF	YES
Hampton County	UHF	YES
Marlboro County	UHF	YES
McCormick County	UHF	YES
Newberry County	UHF	YES
Oconee County	UHF	YES
Saluda County	UHF	YES

Counties not shown use 800 MHz for LAW

FIRE SERVICE

VHF RADIO BAND FOR PRIMARY DISPATCH

County	FIRE	PAL800 ACCESS
Abbeville County	VHF	YES
Allendale County	VHF	YES
Bamberg County	VHF	YES
Barnwell County	VHF	YES
Berkeley County	VHF	YES
Calhoun County	VHF	YES
Cherokee County	VHF	YES
Chester County	VHF	YES
Chesterfield County	VHF	YES
Clarendon County	VHF	YES
Colleton County	VHF	YES
Darlington County	VHF	YES
Dillon County	VHF	YES
Edgefield County	VHF	YES
Fairfield County	VHF	YES
Greenville County	VHF	YES
Greenwood County	VHF	YES
Hampton County	VHF	YES
Kershaw County	VHF	YES
Lancaster County	VHF	YES
Laurens County	VHF	YES
Lee County	VHF	YES
Marlboro County	VHF	YES
McCormick County	VHF	YES
Newberry County	VHF	YES
Oconee County	VHF	YES
Orangeburg County	VHF	YES
Pickens County	VHF	YES
Saluda County	VHF	YES
Spartanburg County	VHF	YES
Union County	VHF	YES

UHF RADIO BAND FOR PRIMARY DISPATCH

County	FIRE	PAL800 ACCESS
Aiken County	UHF	YES

Counties not shown use 800 MHz for FIRE

EMERGENCY MEDICAL SERVICES

VHF RADIO BAND FOR PRIMARY DISPATCH

County	EMS	PAL800 ACCESS
Abbeville County	VHF/800 MHz	YES
Allendale County	VHF	YES
Bamberg County	VHF	YES
Barnwell County	VHF	YES
Berkeley County	VHF	YES
Calhoun County	VHF	YES
Cherokee County	VHF	YES
Chester County	VHF	YES
Chesterfield County	VHF	YES
Clarendon County	VHF	YES
Colleton County	VHF	YES
Darlington County	VHF	YES
Dillon County	VHF	YES
Edgefield County	VHF	YES
Fairfield County	VHF	YES
Greenwood County	VHF	YES
Hampton County	VHF	YES
Kershaw County	VHF	YES
Lancaster County	VHF	YES
Lee County	VHF	YES
Marlboro County	VHF	YES
McCormick County	VHF	YES
Oconee County	VHF	YES
Pickens County	VHF	YES
Saluda County	VHF	YES
Union County	VHF	YES
Williamsburg County	VHF	YES

UHF RADIO BAND FOR PRIMARY DISPATCH

County	EMS	PAL800 ACCESS
Aiken County	UHF	YES
Greenville County	UHF	YES

Counties not shown use 800 MHz for EMS

Plans for VHF and UHF Systems

- Migrate to 800 MHz - Requires local funds, state funds and grants.
- Remain on VHF or UHF – May require funds for narrowbanding by 2013.
- Program the VHF and UHF national and state mutual channels into all radios
- State cache of VHF and UHF radio equipment is being expanded to support these agencies.
- Inventory VHF and UHF radio systems through the use of CASM.
- Perform assessment of VHF and UHF interoperability problems and solutions.

4.3 Standard Operating Procedures

Local governments in South Carolina operate under a "Home Rule" form of government. The authority for local government is summarized in the State Constitution, Article 8, section 17, which provides that "all laws concerning local government shall be liberally construed in their favor. Powers, duties, and responsibilities granted local government subdivisions by this constitution and by law shall include those fairly implied and not prohibited by this Constitution." Based on the Home Rule, the State Communications Interoperability SOP documents do not contain a binding authority.

There are mutual aid and system sharing MOU's for interoperability in place between the Palmetto 800 Network users and the eight (8) local government city/county 800 MHz radio systems. These were implemented in 2000. Each county and most of the larger cities in South Carolina have signed a general mutual aid MOU with the State of South Carolina. The MOU is all encompassing to include resources and communications assets. The State continues to encourage local governments to enter into a Statewide Mutual Aid Agreement for Catastrophic Disaster Response and Recovery. Communication resources are addressed in this mutual aid agreement. Plans will be developed for MOU's to cover the use of VHF and UHF interoperability channels.

The existing Communications Interoperability Procedures and Guidelines were developed to address requirements at all levels of government and all disciplines including Law Enforcement, Fire Service, Emergency Medical Service, Emergency Management, power utilities and federal agencies that participate in the South Carolina statewide radio system.

Because of South Carolina's form of home rule government, the state does not have the authority to enforce local compliance. While the State cannot enforce the use of the communications interoperability procedures, it promotes their use through training, exercises allocation of equipment, funding support and the review of after action reports.

Any required communications interoperability procedure changes or additions are referred to the South Carolina 800 MHz Trunking Advisory Committee's Training and Interoperability Sub-Committee for action. All recommended changes and additions require approval by the User Advisory Committee. The Committee members and the state communications staff work together to stay abreast of processes that may need to be changed. The State is concerned that many of the federal recommended policy changes are pushed down to State and local agencies without funding for implementation of the policy change. Many times this delays compliance for years as these changes are seen as unfunded mandates.

There are no items in the existing SOP's that conflict with or do not comply with current standards or statewide initiatives.

Communications Interoperability Procedures for Public Safety Agencies

SOP Name	***Agencies Included***	***Disciplines Included***	***SOP Location****	***Frequency of Use***
Communications Interoperability Procedures for Public Safety Agencies	State and Local Government	Law Fire EMS Emergency Management	CIO Division Fire Academy Law Enforcement Academy Palmetto 800 Local Govt. Trainers	As needed for training, exercises and incidents.

In September of 2006 the "Communications Interoperability Procedures for Public Safety Agencies" was distributed and has been used for classroom training throughout the state. This document was prepared by the Division of the Chief Information Officer, State Budget and Control Board and was funded by the Department of Public Safety, Criminal Justice Academy. The procedures address the Incident Command System, Incident Communications, Incident Communications Unit Leader, Incident Communications Plan and Incident Communications Interoperability Procedures for 800 MHz. While the procedures focus on 800 MHz, much of it is also applicable to other radio bands. During the class students develop Incident Communications Plans (IC205) for various scenarios.

Communications Interoperability Procedures for Palmetto 800 Mutual Aid Talkgroups

SOP Name	*Agencies Included*	*Disciplines Included*	*SOP Location**	*Frequency of Use*
Communications Interoperability Procedures for Palmetto 800 Mutual Aid Talkgroups	State and Local Government	Law Fire EMS Emergency Management	Internet CIO Division Palmetto 800 Local Govt. Trainers	As needed for training, exercises and incidents.

SOPs covering the use of the Palmetto 800 mutual aid talkgroups have been developed over the years under direction of the User Advisory Committee.

All mutual aid talkgroups (Regional, Statewide & Law Enforcement) and mutual aid conventional repeaters shall not be used for routine daily operations or as ongoing working channels by any agency. These channels shall be reserved for inter-agency communications, special or community events, and incidents requiring multi-agency participation, coordination and emergencies. These shall not be used for administrative or intra-agency communications unless so directed during a major emergency or disaster situation.

Several mutual aid talkgroups have been pre-assigned to assist agencies and disciplines when responding to major disasters (SCMA01 - Law Enforcement, SCMA02 - Fire, SCMA03 - EMS and SCMA04 - Command and Control).

All use of mutual aid talkgroups or repeaters for special events or emergencies is to be coordinated with the appropriate agencies.

The SCCALL Channel is monitored by South Carolina Emergency Management Division's State Warning Point. Mutual Aid Talkgroups SCMA5, SCMA6, SCMA7, SCMA8, SCMA9 and SCMA10 are available for use during mutual aid incidents or for special events. The use and assignment of Mutual Aid Channels is coordinated by the SCEMD, State Warning Point.

These SOPs are available on the Internet at*:*
cio.SC.gov/councilSCommittees/palmetto800/talkgroupsandchanels.htm.

Communications Interoperability Procedures for South Carolina 800 MHz Mutual Aid Channels and Repeaters

SOP Name	***Agencies Included***	***Disciplines Included***	***SOP Location****	***Frequency of Use***
Communications Interoperability Procedures for the South Carolina Mutual Aid 800 MHz Channels and Repeaters	State and Local Government	Law Fire EMS Emergency Management	Internet CIO Division Palmetto 800 Local Govt. Trainers	As needed for training, exercises and incidents.

SOPs covering the use of the 800 MHz conventional mutual aid channels have been developed over the years under direction of the User Advisory Committee.

Purpose: To provide a plan for the implementation of shared public safety Mutual Aid Conventional 800MHz radio repeaters in South Carolina.

Objectives:

Maximize the use of existing facilities.

Maximize the use of available frequencies.

Minimize frequency interference.

Provide for the sharing of equipment and sites.

Benefits:

Provides for improved inter-agency mutual aid communications.

Provides backup for 800MHz trunked radio systems.

All eligible local, state and federal public safety authorities shall have access to the shared public safety conventional 800MHz radio repeaters. Public safety authorities are defined as entities licensed in the Public Safety Radio Services and the Special Emergency Radio Service and their federal counterparts.

4.1 *These procedures are available on the Internet at:*
cio.SC.gov/councilSCommittees/palmetto800/mutualaid800repeaterplan.htm

Interconnect Guidelines for Palmetto 800 Primary System Users

SOP Name	*Agencies Included*	*Disciplines Included*	*SOP Location**	*Frequency of Use*
Interconnect Guidelines for Primary System Users	State and Local Government	Law Fire EMS Emergency Management	Internet CIO Division Palmetto 800 Local Govt. Trainers	As needed for training, exercises and incidents.

Interconnect guidelines for Palmetto 800 Primary System Users have been developed under the direction of the Palmetto 800 User Advisory Committee.

Purpose: To maintain the availability and functionally of the Palmetto 800 Network for the primary system users.

Objectives:

a) Ensure the integrity of the Palmetto 800 Network.
b) Provide interoperability options.
c) Manage system loading.
d) Establish a guideline for the use of interconnects.

Benefits:

a) Improve safety.
b) Reduce interference and interconnect technical problems.
c) Provides alternate 800MHz service for special events and emergencies.

These guidelines are available on the Internet at:
cio.SC.gov/councilSCommittees/palmetto800/primarysystemusersguidelines.htm

Interconnect Guidelines for non-primary Palmetto 800 Network Users

SOP Name	*Agencies Included*	*Disciplines Included*	*SOP Location**	*Frequency of Use*
Trunked 800 MHz System Interconnect Guidelines	State and Local Government	Law Fire EMS Emergency Management	Internet CIO Division Palmetto 800 Local Govt. Trainers	As needed for training, exercises and incidents.

Interconnect guidelines for non-primary Palmetto 800 Users have been developed under the direction of the Palmetto 800 User Advisory Committee.

Purpose: To maintain the availability and functionally of the Palmetto 800 Network for the primary system users.

Objectives:

Ensure the integrity of the Palmetto 800 Network.

Provide interoperability options.

Manage system loading.

Establish a guideline for the use of interconnects.

Benefits:

Improve safety.

Reduce interference and interconnect technical problems.

Provides alternate 800MHz service for special events and emergencies.

These guidelines are available on the Internet at:

cio.SC.gov/councilSCommittees/palmetto800/primarysystemusersguidelines.htm

All of the SOPs cover Law Enforcement, Fire Service, Emergency Medical Service and Emergency Management use of the Palmetto 800 mutual aid talkgroups and the 800 MHz conventional mutual aid channels. They may be implemented by incident, city, county, region or statewide, depending on the situation.

The Communications Interoperability Procedures are based on the NIMS concepts of interoperability, reliability, scalability and portability, resiliency and redundancy of communication systems. The SOPs support the Incident Command System, the use of plain language, the preparation of an Incident Communications Plan (IC-205) and the use of Mutual Aid Channels.

The NIMS training requirements for all first responders and disaster workers in South Carolina are FEMA IS-700 and ICS-100. Communications Unit Leaders are required to also complete FEMA IS-800 and ICS-200 and ICS-300. This training is acquired through classroom training provided by the Criminal Justice Academy, the State Fire Academy, the Emergency Management Division and some local governments. Certain courses are also available on the Internet for self paced training.

While those individuals who complete the Communications Interoperability Procedures training receive a certificate, at this time there is no other provision for the credentialing of communications personnel. It is South Carolina's under standing that DHS is developing a Communication Unit Leader certification. When The National Emergency Responder Credentialing System is available to document minimum professional qualifications, certifications, training and education requirements that define the standards required for specific communications functions, South Carolina will adopt that system for credentialing.

While the Communications Interoperability Procedures training does cover basic Communications Unit Leader training, additional training needs to be provided based on the Communications Unit Leader Core Competencies publication. When the COML curriculum is published by HLS, it will be incorporated into the Communications Training Program.

At this time the State does not maintain a listing of personnel who are qualified to staff Communications Unit functions.

As new technology and systems are deployed, new SOPs will be developed to help insure interoperability is available when needed and is utilized in an effective manner.

4.4 Training and Exercises Plan

A series of formal communications classes are being conducted throughout the state. The End User Class covers such topics as: the hands on use of certain radios, radio features, mutual aid channels and direct (simplex) mode. The Interoperability Procedures Class focuses on what avenues of communications could be utilized in the event of an emergency occurring anywhere in the State of South Carolina. Also covered are the responsibilities of the Communications Unit Leader as defined by the Incident Command System as well as what additional equipment could be made available to in an emergency. The target audience for

this class is Supervisors, Department Leaders, Training Officers and anyone who may fill the role of a Communications Unit Leader. Classes are conducted by a qualified communications trainer. As of August 31st, 2007, there have been over 80 of the above classes offered throughout the South Carolina with an attendance number of over 1,000.

The end user and train the trainer classes are offered around the state as needed. During the past year several classes a month have been offered. The announcement and schedule of communications classes is disseminated though mail outs, emails and the CIO web site. The training is available to all Public Safety and Emergency Management agencies in South Carolina. The training is delivered by a contract trainer at various sites throughout the state.

While no formal process has been utilized for a needs study, this information has been gathered from end users, the Palmetto 800 User Advisory Committee and the Palmetto 800 User's Group.

Other than the NIMS requirements, no communications specific training standard has been developed for all first responders including field units, telecommunicators and technicians. When available from DHS, the Communications Unit Leader training requirements will be implemented

The Interoperability Procedures Class addresses the basic requirements for the Communications Unit Leader. The DHS Communications Unit Leader Core Competencies will be implemented and covered in future classes.

Currently only class attendance is tracked. COML certification requirements, certificate & IDs, and a process to track COMLs are under study.

At this time communications training incentives are only available to law enforcement officers. Law enforcement officers receive eight hours of Continuing Education Credit for attending the Communications Interoperability Procedures Class.

All communications training includes the use of mutual aid channels and talkgroups for interoperability. The Interoperability Procedures Class also includes having the students participate in several scenarios which require the preparation of an Incident Communications Plan (ICS-205). All state level and grant funded exercises have interoperable communications objectives. At this time no process exists to monitor objectives for the local government exercises.

The Interoperability Procedures have been utilized for statewide, regional and local exercises where communications interoperability was required. This is generally coordinated through the Division of the State Chief Information Officer and the South Carolina Emergency Management Division.

4.5 Usage

Incident Commanders, Communication Unit Leaders, first responders and dispatchers are made aware of the interoperability capabilities through classroom and on the job training. They are encouraged to use interoperability channels when needed for mutual aid communications.

Frequently local agencies communicate with other local and state agencies by utilizing the Regional Mutual Aid Talkgroups. No scheduling or prior arrangement is required for this use. For emergencies, disasters and special events agencies request the use of one or more of the Statewide Mutual Aid Talkgroups. This is done through the State Warning Point. Where appropriate, the SCMA talkgroup can be regionalized to only the effected area.

The assigned Regional Mutual Aid Talkgroups are likely used daily for communications between various agencies at the local and regional level. If the incident communications requirements exceed this capacity, additional mutual aid talkgroups may be requested through the State Warning Point. If additional radios, portable repeaters, portable towers etc are required, these can be requested from the State CIO's cache of communications equipment.

There are mutual aid and system sharing MOU's for interoperability in place between the Palmetto 800 Network users and the eight (8) local government city/county 800 MHz radio systems. These were implemented in 2000. Each County and most of the larger cities in South Carolina have signed a general mutual aid MOU with the State of South Carolina. The MOU is all encompassing to include resources and communications assets. The State continues to encourage local governments to enter into a Statewide Mutual Aid Agreement for Catastrophic Disaster Response and Recovery. Communication resources are addressed in this Mutual Aid Agreement.

The interoperability resources are used for inter-agency communications including both within and across disciplines. Four of the Statewide Mutual Aid Talkgroups are pre-designated for Law, Fire, EMS and Command & Control. Others may be designated for Emergency Management, Air Branch, and Logistics etc, as needed. These talkgroups may be setup for statewide use or regionalized where appropriate. Also Dynamic Regrouping can be utilized to bring outside agencies onto an existing agency talkgroup, when that is desired.

The South Carolina Emergency Management Division conducts weekly statewide communications tests to verify that EMD repeaters and local government equipment is operational. Communications Interoperability Procedures, end user radio training and standard radio templates all help ensure that equipment is routinely used to improve day-to-day interoperability between agencies.

5 Strategy

In 1999 the South Carolina Public Safety Coordinating Council issued the Statewide Public safety Communications Report. The report laid out the long term recommendations and strategies for the development of a statewide interoperable communication system shared by all public safety first responders. Many of these recommendations have been accomplished, including: **Implement a Statewide Wireless Communications Network** (Palmetto 800 Network), **Adopt a Multi-Agency Governing Structure** (South Carolina 800 MHz Trunking Advisory Committee), **Form a Communications Systems User Group** (Palmetto 800 User's Group), **Pursue Funding Sources** (state and federal funds have been made available), **Encourage Creative Solutions to System Development** (Palmetto 800 Network has public and private ownership).

The following vision, mission, goals, objectives and strategic initiatives were developed to support, enhance and expand South Carolina's previous communications interoperability efforts.

5.1 Interoperability Vision

South Carolina plans to continue to follow the State's Strategic Plan for interoperability that has already been submitted to DHS as part of its statewide interoperability plan. The South Carolina vision is to continue to support, enhance and develop an interoperability system that is used to meet agencies daily communications needs and interoperability is available in all responder radios. Pure radio interoperability, coverage and communications cannot be limited by jurisdictions, but are part of the statewide or multi-state network. Agencies, through the State's Mutual Plan, must be able to relocate emergency response personnel and equipment to an affected area anywhere in South Carolina while maintaining communications interoperability across the state. Since South Carolina already has a statewide integrated interoperability system (Palmetto 800 Network) that is compatible with our eight (8) local government trunked 800 MHz systems, Augusta, Georgia (a Palmetto 800 User), the City of Charlotte, North Carolina's 800 MHz system, other North Carolina 800 MHz systems and the North Carolina statewide VIPER 800 MHz radio system, South Carolina plans to continue to develop this existing statewide network.

A part of South Carolina's long term vision is to continue to work towards moving the Palmetto 800 Network to a P-25 digital technology platform and developing partnerships with existing 800 MHz systems that wish to integrate into the Palmetto 800 network. The State's goal is to begin the process of moving to the P-25 platform within the next five (5) years. Funding for the move to a P-25 platform will be a challenge as it places a financial strain on the individual agencies and the State.

5.2 Mission

The Mission of Statewide Communications Interoperability Plan is to enhance and expand South Carolina's existing collaborative interoperability efforts resulting in the ability of public safety providers, public service providers and utility providers to exchange incident essential communications on demand, in real time, utilizing the technologies set forth in the Interoperability Continuum.

5.3 Goals and Objectives

Goal 1 - Enhance and Expand Statewide Communications Interoperability

South Carolina will prioritize communications solutions based on risk assessments – threat and population densities. Realizing that many interoperability problems exist, the following major interoperability shortfalls have been identified:

Lack of coverage and spectrum along the I-85 corridor.
The I-85 corridor in the upstate of South Carolina is a key population center and economic area that has numerous diverse communications systems supporting public safety agencies. A number of the agencies along the I-85 corridor already have 800 MHz equipment that is not being fully utilized for daily operations. A lack of coverage and spectrum has been identified in this area. This additional coverage is needed to support interoperability associated with special events, high traffic volumes, disaster response etc.

Lack of coverage in the Garden City – Murrells Inlet area.
Along this coastal area of South Carolina agencies already utilize 800 MHz technologies for day to day communications. A lack of coverage has been identified in this area. This additional coverage is needed to support interoperability associated with special events, high traffic volumes, increase in population due to tourism and hurricane evacuation.

1. **Objectives**
   - **1.1.** Evaluate interoperability effectiveness across South Carolina to determine the areas and types of agencies where current interoperability efforts need improvement.
   - **1.2.** Prioritize the areas that need the most assistance in enhancing interoperability or radio coverage. Priority will be based on population effected, economic impact to the State, potential terrorism threat and natural hazards.
   - **1.3.** Optimize available funds, using all funding sources to maximize the results and effect of the interoperability enhancements.
   - **1.4.** Develop policies and contractual programs, compliant with guidance from the Governance and Standard Operating Procedures elements of the Interoperability Continuum that encourage communications service

vendors to improve their continuity of service plans, availability of alternate circuits and channels and improved alternate or redundant capability.

Goal 2 - Continue Statewide Infrastructure Enhancement and Expansion

As additional agencies make plans to migrate to the Statewide 800MHz Trunked Radio Network, additional sites, channel capacity and subscriber radios will be required. Continued enhancement and expansion of a statewide radio infrastructure will provide participating agencies and interoperability user's statewide voice and data coverage. The design is to support wide-area interoperability via mobile and portable coverage requirements. Priority will be given to those agencies with matching funds available and 800 MHz trunked radio systems that wish to migrate to the Palmetto 800 Network.

2. Objectives:

2.1. Develop minimum functional requirements.
2.2. Develop eligibility requirements.
2.3. Review solutions and areas that provide matching funds.
2.4. Develop and review solutions that provide spectrum and infrastructure efficiencies in developing partnerships and shared statewide solutions.
2.5. Review requests and justifications.
2.6. Develop MOU and distribution plan.
2.7. Acquire and distribute radio equipment.

Goal 3 - **Enhance Safety and Security**

Enhance responders and the public's safety and security through reliable voice and data communications systems.

3. Objectives:

3.1. Develop standards for annual communications exercises (see goal 7).
3.2. Continue to provide radio and interoperability training (see training, Goal 6)
3.3. Continue to work with the South Carolina Legislature to develop polices and funding for the support of statewide interoperability.

Goal 4 - Improve Spectrum Efficiency

4. Objective:

4.1. Share radio system with multiple agencies and service types.
4.2. Utilize simulcast solutions for spectrum efficiency where affordable and technology feasible.
4.3. Promote the use and upgrade of VHF and UHF equipment supporting narrowband channels (mandated for 1/1/2013)
4.4. Utilize spectrum efficient 700 MHz frequencies when they are made available.
4.5. Develop plans and strategies that ensure the use of narrowband UHF and VHF national and state mutual aid channels.

Goal 5 - Develop a Database of State and Local Public Safety Radio Systems

5. Objectives:

5.1. Use funds from the PSIC grant to help local agencies populate data into the CASM

5.2. Train and use a contractor or temporary personnel to assist with the input of local and state agency data into CASM.

5.3. Make an assessment of VHF and UHF interoperability problems and possible solutions.

Goal 6 - Provided Training for all Supplied Interoperability Equipment.

6. Objective:

6.1. Training is provided to County 911 Dispatch, Emergency Operations Centers (EOC), DPS, and other key coordination nodes on the 800 MHz system(s) and other supplied interoperability equipment in support of the Training element of the Interoperability Continuum.

6.2. Continue to support interoperability and radio training for all public safety disciplines through the Criminal Justice and Fire Academy.

Goal 7 - Evaluate communications interoperability exercises.

Exercise the use of interoperable communications, in support of the Exercises element of the Interoperability Continuum, in conjunction with other exercises or as stand alone exercises to evaluate progress.

7. Objectives:

7.1. Evaluate interoperable communications in conjunction with ongoing exercises.

7.2. Conduct regular drills to ensure that all communications systems are properly functioning and utilized.

7.3. Utilize a contractor to develop (2) two communications interoperability exercises. Consideration should be given to at least one of these exercises one of the exercises being independent of any other exercise.

Goal 8 – Enhance the State's Cache of interoperable radio equipment.

8. Objectives:

8.1. Expand the State's cache of radios for use during emergencies, disasters, special events and other events across South Carolina.

8.2. Radios should be fully functional with analog ITACs and SCTACs, SmartZone (digital and analog) and P-25 systems.

8.3. Equipment should be both rechargeable and alkaline battery packs.

8.4. Fixed wing State and CAP aircraft assets are to be functionally quipped to support suitcase style conventional repeaters.

8.5. ESF-2/CIO shall maintain and deploy the State's cash of equipment as needed. Equipment deployment shall be in coordination the State Emergency Management and available 7/24/.

Goal 9 – Enhance the development of the existing interoperability capabilities to support local government interoperability.

9. Objectives

9.1. Review existing interoperability within the CTCC Regions to determine the best interoperability solutions for the region.

9.2. Schedule regional and local county meeting to discuss current interoperability capabilities and concurrence with the local agencies in develop of a strategy to attain their interoperability goals.

9.3. Insure that all interoperability strategies conform with the statewide mutual strategy

5.4 Strategic Initiatives

The South Carolina Statewide Communications Interoperability Plan being submitted to the Department of Homeland Security is a continuation of the State's existing plan. Key metropolitan areas in South Carolina that have limited interoperability through the statewide radio system will continue to be our focus for interoperability enhancement.

Governance Enhancements

As part of the strategic initiative SC needs to continue to work on codifying its governance for support of the Statewide Interoperability Plan and the elements of the SAFECOM Interoperability Continuum. Funding support and direction from the Legislature will help further codify fulltime staff support, when they meet next year. Currently the State CIO is the only agency legislated to coordinate interoperability. The CIO's legislative authority only extends to the Palmetto 800 Network and the Statewide Conventional Repeater Network. See Exhibits 1 – 4 for existing committees.

Technology Initiatives

While the 800/700 MHz band is the only available spectrum that will allow South Carolina to continue to build out the statewide interoperability systems, additional interoperability enhancements need to be done with VHF, UHF and Low Band systems to enhance interoperability. South Carolina will aggressively encourage VHF, UHF and low band public safety radio users to implement and utilize the national interoperability channels for their specific band. The NPSTC channel naming nomenclature will be required.

Gateway devices will continue to be used as a tool to support interoperability between the various public safety radio bands. Gateways are not considered as permanent solutions to interoperability and must be closely monitored. Gateways while creating limited interoperability do so at the cost of spectrum capacity and efficiency. Where possible, the State's cache of radio equipment will be used to support agency interoperability first. Remembering that South Carolina is a "Home Rule" state, State interoperability goals cannot require agencies to move their primary communication to the Palmetto 800 Network. Our goal is to have all agency senior staff and NIMS sections leaders to have access to the statewide Palmetto 800 system and the statewide conventional repeater network.

Interstate Initiatives

The South Carolina Palmetto 800 radio system is directly interoperable with many of our surrounding states radio systems. Recurring funding for these projects are critical to their success. A joint multi-state committee including the states of North Carolina, South Carolina, Georgia and the City of Charlotte, North Carolina needs to be established to address regional east coast interoperability. South Carolina intends to be a catalyst to start this multi-state planning group. Several initiatives/plan are already in the works to enhance interoperability with neighboring States these include;

North Carolina

(1) System Radio ID exchanges – The South Carolina Palmetto 800 Network and the North Carolina VIPER System have already begun to exchange system Radio ID's for interoperability between the two States.

(2) The South Carolina Region 5 Mutual Aid talkgroup is being installed into the North Carolina Highway Patrol dispatch office in Elizabethtown, N.C. to provide direct interoperability for those Counties that border N.C. (Horry, Marion, Dillon and Marlboro). The Elizabethtown project with NC is a test bed project to enhance interoperability with NC. Successful results from the test will be the basis for expanding this project across all of our border counties.

(3) The future plan is to provide interoperability access to all the South Carolina Regional Mutual Aid talkgroups that border NC.

(4) Future 2008 – Develop an interoperability plan between Charlotte, NC and the Palmetto 800 system.

Georgia

(1) Augusta - Richmond County, Georgia is a major user of the Palmetto 800 Network and already has statewide interoperability access to South Carolina.

(2) In South Carolina the Beaufort County 800 System and Jasper County (Palmetto 800 Network) have mutual aid interoperability with the Savannah, Georgia 800 MHz system.

(3) Future 2008 – South Carolina today has limited interoperability with the other areas of Georgia that border South Carolina. Georgia's radio systems are a more diverse and offer a more of an interoperability challenge. South Carolina plans to begin meetings with Georgia in 2008 to look at ways and solutions that can be used to improve interoperability with the other areas of Georgia.

Data Initiatives

The South Carolina Statewide Palmetto 800 DataTac Mobile Data System does offer interoperable text messaging at this time. Palmetto 800 mobile data system users have the capability to text message any other user on the system across the state. The Palmetto 800 DataTac and the county mobile data systems are currently not interoperable. This may be a future project if funding and recurring dollars become available. The future for mobile data seems to be moving towards the integrated P-25 voice and data systems that offer more interoperability solutions for data services.

In June of 2007 the South Carolina Legislature passed a resolution to create the South Carolina Technology and Communications Study Committee for the purpose of evaluating the state's broadband communications infrastructure and assessing the availability of and need for broadband services in un-served and underserved areas within the state. South Carolina has decided that due to the funding limitations and the State's current on going planning for a statewide WIMAX data solution, that enhancing the interoperability our current data system will not be a priority at this time with these new more interoperable data solutions on the horizons. South Carolina's focus will be on the enhancement of the voice systems until these new data systems are available. With the rapid development and technology changes of commercial data systems it appears that new enhanced interoperability data solutions are on the immediate horizon that will be more cost effective that expanding the older DataTac systems.

Catastrophic Loss of Communication Assets

The South Carolina statewide radio system has a number of levels of redundancy built into its system and the eight (8) local government county systems that partner together. South Carolina statewide network actually consist of multiple independent systems:

(1) The Palmetto 800 trunked system (69 sites)
(2) The Statewide Interoperability Repeater System (81 sites)
(3) The Palmetto 800 Data System (32 sites)

(4) The local government city/county 800 trunked systems

Where the local government 800 MHz systems overlay the Palmetto 800 Network, and additional layer of redundancy is created. Most of the city/county local government 800 trunked systems have also added additional layers of conventional repeaters to enhance the redundancy of their systems. The Palmetto 800 and 800 MHz City/County systems share over 10,000 system IDs and infrastructure to enhance redundancy for catastrophic loss of communications assets.

The Palmetto 800 Network and City/County 800 MHz systems are under contract with their vendor for support and disaster recovery. The Palmetto 800 has a cache of spare parts, antennas, coax, transmitters housed in South Carolina. The Palmetto 800 system and several local governments are currently procuring portable trunked sites for temporary site replacement in case of a catastrophic loss.

Palmetto 800 trunked site redundancy:

The Palmetto 800 systems utilize several forms of system and power redundancy;

Power (1) Each site is equipped with a back up generator that will completely support the site for a minimum of 48 hours.
(2) Each Palmetto 800 site is equipped with a DC rectifier system that operates the site. The rectifier system includes a battery bank system that will operate the site for 12 to 18 hours if the generator fails.

Site Trunking
The Palmetto 800 sites are designed to operate even if they lose connectivity with the network. In the wide area mode radios have the ability to communicate across the state, in the site trunking mode the site continue to operate in a local county mode.

The State of South Carolina in 1994 funded the install and recurring cost of a satellite radio and telephone in each of the States Emergency Operations Centers for catastrophic loss of communications. All of the circuits that support the Palmetto 800 system are TSP (Telecommunications Service Priority) lines.

CIO has a number of communications assets that directly supports disasters and catastrophic loss of communications. SC during hurricane Katrina and Wilma deployed these assets to support Mississippi and Florida. These assets were also used in support of the 2005 Graniteville, S.C. train derailment and catastrophic chlorine leak that killed 9 and injured over 400.

The CIO equipment cache includes:

- Two (2) portable tactical self-contained 75' tower systems equipped with (VHF, UHF & 800 repeaters) and generator.
- One (1) portable tactical self-contained 100' tower system with a six (6) channel SmartZone trunked site with conventional repeater and generator.
- Seven (7) suitcase style portable repeaters in the VHF, UHF and 800 bands. The portable repeaters are designed to be deployed as airborne communications platforms utilizing Civil Air Patrol Aircraft or roof top mounts.
- Twenty-five (25) VHF portable radios
- Twenty-five (25) UHF portable radios
- Two hundred (200) 800 MHz portable radios, (150) are P-25 capable
- Five (5) gateway devices
- Fifty (50) satellite phones
- Deployable technical and programming support.
- One (1) 40' communications bus with 5 dispatch consoles
- Twenty-one (21) spare 800 MHz conventional repeaters (100 watt)
- Twenty (20) portable repeaters assigned to fire department 100' aerial ladders or other elevated aerial platforms (on order).

Numerous agencies have purchased additional equipment on their own to support communications interoperability and catastrophic communication loss. The State ESF-2 maintains a list of State's, private companies and military units that have deployable tower systems that may be available from within the State or from neighboring states that could be used during a catastrophic loss of communications.

All agencies are encouraged, as part of South Carolina existing interoperability plans, to program the appropriate VHF, UHF and 800 MHz interoperability channels in both the repeater and simplex modes to enhance radio to radio direct communications should communications infrastructures failed.

Transportation Initiative

Transportation safety and security elements, if authorized by the FCC, are able to participate in the Palmetto 800 shared system. Numerous local and regional bus transportation systems participate in the Palmetto 800 statewide system or the local government 800 MHz trunked systems for their daily communications needs. The South Carolina State Ports Authority security operation is a part of the Charleston County 800 MHz system which has the capability to access the Palmetto 800 System. FCC regulations on frequency use and sharing continue to limit some interoperability solutions to gateways. It appears that South Carolina has no intercity bus services or passenger rail services with safety or security elements operating within the state.

5.5 National Incident Management System (NIMS) Compliance

The State of South Carolina, along with all of its counties, has adopted the National Incident Management System (NIMS) and is currently compliant with NIMS requirements. NIMS has been incorporated into the State Emergency Operations Plan and the State Homeland Security Strategy. Mark Sanford, the Governor of South Carolina, issued Executive order 2005-12 on June 3, 2005 directing the adoption of the National Incident Management System (NIMS) as the standard for incident management in the state. The state developed the *National Incident Management System (NIMS) Strategic Implementation Plan* to provide the State of South Carolina with a strategic roadmap for coming into full compliance with the intent of NIMS Implementation including the institutionalization of NIMS within the State of South Carolina. Local jurisdictions and state agencies have been tasked, via several joint issued Homeland Security Information Bulletins from the South Carolina Law Enforcement Division (SLED) and the South Carolina Emergency Management Division (SCEMD), to follow the NIMS implementation matrices developed by the NIMS Integration Center (NIC). The National Incident Management Capability Assessment Support Tool (NIMCAST), which is the preferred compliance tool of FEMA, will be utilized to ensure and assess FY2007 NIMS compliance. The State has, and continues to fund a NIMS Coordinator for the state whose job duties are to ensure that both state and local agencies understand NIMS and compliance issues. Also, as mentioned above, the State has also developed a strategic roadmap to guide NIMS implementation statewide.

The Communications Interoperability Procedures incorporated in the State Plan and ESF-2 Emergency Preparedness Plans for Public Safety Agencies support NIMS, unified command, common terminology and integrated communications.

The Statewide Communications Interoperability Plan supports and promotes the use of the National Incident Management System (NIMS) by:

- Providing integrated communications resources
- Promoting the use of common (plain text) terminology
- Utilizing resource typing where available
- Using the *National Mutual Aid Glossary of Terms and Definitions* and elements of the *Resource Typing Definitions* into your daily emergency management activities and operating procedures
- Using the definitions, kinds and types used in the national system when requesting or ordering incident resources
- Providing resources to support unified command operations

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5.6 Review and Update Process

The SC Interoperability Plan (SCIP) will be a living document that will have to address new strategies and technologies through out its life. The CIO as the administrator for the Palmetto 800 trunked system, Palmetto 800 conventional

repeater system and communications contract administrator for SC will be the lead agency coordinating the review and update process, The CIO will annually update the statewide plan after review and approval of any changes by the CTCC Communications Committee, the South Carolina 800 MHz Trunking Advisory Committee and the Local Government Communications Association. Collaborative agreement between all the groups will be required on any changes. Requested changes will then be sent to the State CTTC Council for final approval.

Changes in the plan will be communicated through the local associations including Fire, EMS, Law Enforcement, APCO and Sheriff's associations, regional meetings, Palmetto 800 user meeting, state association meeting and regional CTCC Committees. Much of this process is already is placed and is a component of the current Palmetto 800 Network and the Palmetto 800 web site (http://cio.sc.gov/councilscommittees/palmetto800/)

6. Implementation

Implementation of the Interoperable Communications Plan throughout South Carolina will require a statewide effort. The governance structure that will be used to support implementation efforts consists of State Agencies, County Governments and Municipal Governments that are located throughout the State of South Carolina. These responsibilities for Public Safety Interoperable Communications implementation efforts are broken down by governmental level and detailed below:

1) **PSIC Implementation Oversight** – Will be carried out by the Communications Subcommittee of the State Counter Terrorism Coordinating Council (CTCC) in coordination with the CIO. The CTCC has cross-agency, executive level representation, and is ideal to oversee this critical initiative in its advisory role to the State Homeland Security Advisor. In addition, the State's CIO is an ideal partner in this undertaking as it has already established longstanding and respected governance structures. The State CTCC and CIO have the following responsibilities:

    a) Include PSIC implementation updates on their regular meeting agendas and discuss efforts within their respective areas/regions to meet PSIC implementation requirements as outlined in this plan.
    b) Assign PSIC implementation tasks to the communications subcommittee within State CTCC to capture key information and provide regular updates to the CTCC Chair and members.
    c) To ensure PSIC implementation is facilitated by state and local law, establish a legislative review subcommittee to review the existing state laws that relate to interoperable communications. This subcommittee will make recommendations back to the State CTCC regarding appropriate changes and modifications to existing state laws, policies and regulations to successfully implement and sustain PSIC.

d) SC Radio systems will be encouraged to implement a strategy to migrate to a Project 25 (P-25) standards based technology. All future equipment purchased through grant funds should be P-25 capable or upgradeable.

2) **State Level Responsibilities** - Listed below are responsibilities for the implementation of the PSIC throughout the State.

State Law Enforcement Division (SLED) – As the lead agency for Homeland Security in the state, SLED is responsible for the oversight of all Department of Homeland Security initiatives within the State. With respect to PSIC Implementation, SLED has the following responsibilities:

a) As the Chair of the CTCC ensure the State and Regional CTCC's address PSIC Implementation issues as a part of their normal course of business and remain cognizant of PSIC implementation milestones as laid out in this plan.
b) As the primary agency interacting with DHS with respect to grant issues, SLED will ensure the PSIC Implementation funding needs are taken into account during the grant submission process. In anticipation of reductions in grant funding, begin to develop budget line items to support/sustain PSIC Implementation efforts in South Carolina.
c) Monitor the implementation of the PSIC Grant--to include financial and programmatic monitoring.

Division of the State Chief Information Officer (SCCIO) – Assist SLED in the implementation of PSIC initiatives and provide direct oversight of Interoperable Communications activities throughout the State. Additionally, South Carolina CIO is tasked with the following responsibilities:

a) Ensure that CIO's PSIC POC chairs the CTCC's Communication Subcommittee and coordinates with Regional CTCC's, and other governance organizations (i.e. Local Government Communications Association; User's Group; Palmetto 800 User Advisory Committee as defined in the state contract with Motorola and State public safety associations) to implement the PSIC plan.
b) Ensure PSIC implementation funding needs are identified and taken into account during the grant submission process at the state level. Also develop plans to support PSIC Implementation needs in anticipation of reductions in grant funding.
c) Ensure that PSIC is appropriately exercised.
d) Provide a central point of contact to track and coordinate PSIC training and that training is sufficient to cover the State's interoperability needs.

Monitoring will be performed by representatives of the SAA in conjunction with CIO interoperable communications experts.

The statewide & investment plan will specify key milestones and metrics. Desk and on-site grant monitoring will be performed by the SAA (with interoperable

communications expertise drawn from the SCCIO as needed) to insure these milestones and metrics are being met.

The Palmetto 800 Network implementation plan began back in 1992 and the direction of the system has remained consistent through out the years. The initial short term goal of statewide mobile coverage was completed in 1993. The long term strategy of statewide hand held cover has not been met due to funding and the lack of FCC spectrum needed to complete the project. The CIO's wireless section has been responsible for this project since 1995 when the State Contract for the statewide system was signed.

Most of the key successes for the PSIC Plan continue to follow the path SC has been pursuing since 1992.

1) Ensure adequate coverage
2) Provide user training in radio operations and use of the interoperability tools
3) Assist local governments with the acquisition of interoperable radio equipment through grant and state contracts.
4) Encourage daily use of the system to enhance officer safety through an end user controlled interoperability solution.
5) Encourage public safety use of the Palmetto 800 system.
6) "New" support the use of the CASM Tool
7) Enhance communications strategic technology equipment reserves.
8) Exercise communications strategies and equipment on a regular.
9) Ensure coordinated use of all mutual aid and interoperability technologies.
10) Support and funding from the SC Legislature.

The PSIC grant program is seen as an extension to the concepts that South Carolina has already embraced through the Palmetto 800 Networks. The Palmetto 800 Network holds bi-annual meeting (all users across the state are invited to attend) to discuss system strategies, funding, interoperability, legislation, projects and future directions. These meetings have been held on a bi-annual basis since 1995. The CIO's office also attends most of the local association meeting through out the State to provide updates to public safety agencies as part of its ongoing interoperability efforts.

Training

A key success factor to interoperability is training. South Carolina already has an interoperability training class offered through the Law Enforcement and Fire Training academies, but, a key success factor is attendance at these free radio and interoperability training classes offered throughout the state. .

Point of Contact for Plan Implementation

The POC for the implementation of the plan is:

George Crouch, Wireless Manager
Division of the State Chief Information Officer
4430 Broad River Road
Columbia, South Carolina 29210
(803) 896-0367 office
(803) 896-0098 fax
gcrouch@cio.SC.gov

7. Funding

The South Carolina Legislature does not come back into session until January 2008. At this time, no specific funding has been provided to support the overall implementation strategic initiatives of the PSIC grant. The agencies that are supporting this project have used existing personnel and budgets to support this initiative. The strategic plan for SC is to have funding appropriated through the Legislature to support the PSIC interoperability initiatives. Personnel cost estimates have been outlined and will be submitted to the Legislature.

The State Legislature did appropriate $5,000,000 to support interoperability with the Palmetto 800 system. The funding provides for the CIO to cover 33% of user fee cost for participants in the Palmetto 800 statewide system. The funding also provides funds to cover 33% of the cost of equipment to purchase radios that are interoperable with the Palmetto 800 system.

The SC 911 legislation does allow local governments the discretion to utilize some of their 911 fees to cover recurring fees to participate in the Palmetto 800 system.

There are a number of funding sources available to South Carolina from Legislative funding, to user fees and surcharges. The South Carolina Legislature is responsible for determining the most appropriate funding approach for South Carolina interoperability.

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Funding Sources

Type	Considerations
Public Safety Communications Surcharge	Renewable funding source 911 Type fund (Utilities Model) has been successful in other states ***** Recent decrease in surcharges, i.e., federal tax rescinded Possible regulatory issues, e.g., some phone services may not be included Potential funding for all Interoperable Systems Utilities Model can be used at both the state and local levels 911 fund has call volume as a funding base 911 funding source would have direct correlation with the service being provided Would not negatively impact the General Fund
General Fund Recurring Fixed Line Item	Ongoing funding source Limited General Fund money Inconsistent funding source
General Fund Non-Recurring	Inconsistent funding source Does not allow long term budget planning May not support long term planning and development
General Fund Subscriber Fees	Ongoing funding source General Fund money Money would be redirected from Agency budgets Inconsistent funding source Would have to assess local government subscriber fees
Federal Funds	Quick upfront money Good as "short-term" funding source for one-time project expenses Short spending timelines No or little spending allowed for maintenance, personnel, installations etc. Could be one source of funding, but not the primary source Not preferred as a long-term funding strategy Matching Funds may be required Would not negatively impact the General Fund
Bond Funds	Quick upfront money Bond measures are hard to pass Typically results in one-time funding which is n phased project Would not negatively impact the General Fund

8. Close

This South Carolina Interoperability Plan (SCIP) represents our continuing efforts to address interoperability problems and solutions for South Carolina's first responder communities.

The SCIP help create a foundation to continue to build on our interoperability plans with support from a wide ranging group of elected official, public safety officials, state and local governments.

This section will be completed when the final draft is approved.

Exhibit 1 – Counter Terrorism Coordinating Councils

State Counter Terrorism Coordinating Council

State Law Enforcement Division, Chief – Chairman	South Carolina Department of Health and Environmental Control
South Carolina Emergency Management Division	South Carolina Budget and Control Board CIO
President Pro Tempore of the Senate	South Carolina Department of Natural Resources
Speaker of the House of Representatives	South Carolina Department of Transportation
State Attorney General	South Carolina Department of Public Safety
State Adjutant General	South Carolina Department of Probation, Parole and Pardon
South Carolina Superintendent of Education	Coast Guard Commander
State Fire Marshal	South Carolina Hospital Association
United States Attorney	American Red Cross – South Carolina
Federal Bureau of Investigation SAC	South Carolina Chamber of Commerce
South Carolina Sheriffs' Association	Municipal Association of South Carolina
South Carolina Police Chief's Association	South Carolina Coroner's Association
South Carolina Fire Chiefs' Association	Low Country Coordinating Council Chair
South Carolina Firefighters Association	Midlands Coordinating Council Chair
South Carolina Emergency Medical Services Association	Pee Dee Coordinating Council Chair
South Carolina Emergency Management Association	Piedmont Coordinating Council Chair
National Emergency Numbers Association	

Regional Counter Terrorism Coordinating Councils

Low Country Regional Coordinating Council
Midlands Regional Coordinating Council
Pee Dee Regional Coordinating Council
Piedmont Regional Coordinating Council
State Law Enforcement Division
S. C. Emergency Management Division
Sheriffs (2)*
Police Chiefs (2) *
Fire Service (2)*
Emergency Medical Services (2)*
Local Emergency Management (2)*
Dept. of Health and Environmental Control
Dept. Natural Resources
Dept. of Public Safety
COBRA Team Leader
South Carolina Chamber of Commerce
Municipal Association of South Carolina

Exhibit – 2 State Counter Terrorism Coordinating Council - Communications Committee

CTCC Communications Committee

Members	Agency
William Winn – Co-Chair	Beaufort County Emergency Management
George Crouch – Co-Chair	Division of the State CIO – Co-Chair
Mike Seinfeld	Irmo Fire Dept.
Tommy Sullivan	Florence County Emergency Management
Lynn Skipper	Sumter County Police
Bobby Wilson	Aiken County Sheriff's Department
Wayne Plemmons	SCE&G Power Utility
Tim Simmons	State Law Enforcement Division
Cliff Parker	Charleston County Emergency Medical Service
Ex-Officio:	
Buddy Jordan	Division of the State CIO

Exhibit 3 – South Carolina 800 MHz Trunking Advisory Committee

Name	Agency
Law Enforcement	
- Doug Connelly	South Carolina Highway Patrol
- Tim Simmons	State Law Enforcement Division
- Don Brookshire	Anderson County Sheriffs Department
Fire	
- Mike Sonefeld	Irmo Fire Department
EMS	
- Steve McDade	Abbeville County EMS
EMD	
- Billy Staley	Orangeburg County Emergency Management
Power Utility	
- James Burn	South Carolina Electric & Gas Co.
- John Boyt	New Horizon Electric Coop.
Government	
- Nick Babin	South Carolina Dept. of Public Safety
- Joyce Outlaw	Dept. of Health and Environmental Control
- Matthew Littleton	Anderson County Emergency Services
Large Users (500+)	
- Gary Hewett	Augusta/Richmond County, Georgia
- George Brothers	Lexington County
- Elaine Johnson	South Carolina Dept. of Public Safety
- Wayne Plemmons	South Carolina Electric & Gas Co.
- Daniel Lane	Richland County
- Freddie Thompson	Spartanburg County Communications
- Rick Hines	Columbia Police Dept.
- Eve Eggiman	Georgetown County
- Mike Horne	Greenville Police Department
- Ron Arroyo	Dorchester County
Local Government 800 MHz Systems Representative	
- William Winn	Beaufort County Emergency Management
State Contract Administration	
- George Crouch	Div. of the State Chief Information Officer
- Boykin Roseborough	Div. of the State Chief Information Officer
- Steve Davis	Div. of the State Chief Information Officer
Frequency Coordinator	
- Buddy Jordan	Div. of the State Chief Information Officer

Exhibit 4 – Local Government Communications Association

Local Government Communications Association

City - County	Point of Contact
Beaufort County 800 System	William Winn
Charleston County 800 System	Rick Vien
City of Charleston 800 System	Chuck Reynolds
Florence County 800 System	Tommy Sullivan
Horry County 800 System	Toni Bessent
Marion County 800 System	Vacant
Sumter County 800 System	Linn Skipper
York County 800 System	Cotton Howell

Exhibit 5 – Palmetto 800 Network Users

State Government Users	Local Government Users
SC B&CB - Div Of Local Government	Clarendon Fire Dept
SC Dept. Of Disabilities & Special Need	Jasper Sheriffs Office
SC Dept Of Mental Health	Jasper
SC Dept Of Mental Health	Jasper Co Fire And Rescue
SC DMH Public Safety	Williamsburg Government
SC Dept. Of Consumer Affairs	Williamsburg Fire
SC Dept. Of Corrections	Greenville
SC Dept Of Corrections	Greenville Sheriff
SC DHEC	Greenville Solid Waste
SC Dept. Of Juvenile Justice	Aiken Sheriff's Office
SC Dept. Of Natural Resources	Aiken Detention Center
SC Dept. Of Transportation	Aiken Co Sheriff Reserve
SC Employment Security Commission	Aiken Storm
SC Dept. Of Public Safety	Aiken Coroners
State Transport Police	Lee Sheriff's Department
Ofc Of Professional Responsibility	Lee E 911 Communications
Criminal Justice Academy	Lee Emergency Preparedness
SC Bureau Of Protective Services	Lee Fire / EOC
SC Division Of State CIO	Dillon Sheriff's Office
SC Probation Pardon & Parole	Dillon Emergency Preparedness
SC Parks Recreation & Tourism	Chester Sheriff's Office
Army National Guard	Chester Co Emergency Management
SC Emergency Management Division	Fairfield Sheriff's Office
SC State EMS	Fairfield Coroner
SC Law Enforcement Division	Berkeley Communications
Public Service Commission	Berkeley Coroner Office
SC Budget & Control Board	Kershaw Sheriff's Office
SC Fire Academy	Kershaw Fire Service
Office Of Regulatory Staff	Kershaw Co E911 Communications
SC House Of Representatives	Anderson Sheriff's Office
SC Senate	Anderson Coroner
SC State Task Force	Anderson Emergency Services
Office Of The Adjutant General	Bamberg Emergency Services
Lower Savannah / Aiken	Bamberg Office Of Aging
SC Dept Of Labor Licensing And Regulations	Mauldin
SC LIR State Fire Marshalls Office	Newberry City Police Dept
SC Forestry Commission	Andrews Police Dept
Will Lou Gray Opportunity School	Greer Police Dept
Orangeburg-Calhoun Technical College	Prosperity Police Dept
State University Police Dept	Calhoun County VFD
University Of South Carolina Housing	Whitmire Police Dept
University Of South Carolina Police	Abbeville City Police Department
Meducare/MUSC	Abbeville City Fire Dept
Medical Univ. Of SC	Due West Police Dept
MUSC Public Safety	Rock Hill Police Dept
Augusta State University	Lancaster City Fire
Clemson University Fire And Ems	Lancaster City Police Dept
Clemson University Poultry Health	Calhoun Falls
Clemson University Plant Industry	Gaffney
Clemson University Police	Tega Cay City Police Dept
	Clemson City Police Dept
	Bennetsville Police Dept

Federal Users

Federal Bureau Of Investigations
Ft. Jackson 5th Bde 87th Div
SC Army National Guard
Ft. Jackson Law Enforcement
Bureau Of Alcohol, Tobacco & Firearms
Us Fish And Wildlife Service
South Carolina National Guard
Us Marshal Service
Social Security Administration
Us Department Of Justice
Naval Hospital Charleston

Utility Users

SCE&G
Aiken Electric Cooperative
Edisto Electric Cooperative
Laurens Electric Cooperative
New Horizon Electric Cooperative
Santee Cooper
PSNC Energy
Berkeley Electric Cooperative
Duke Power
Progress Energy

Other Users

Carolina Med Care
Community Transport Service
Albermarle Corporation
Eastman
Gold Cross Ems
Medshore Ambulance Service
Rural Metro Ambulance Service
Care Alliance Health Svcs.
Myrtle Beach Communications
Communications Specialists
Carolina Communications
Radio Communication Service
Mobile Communications Of Charleston
Columbia College Police Dept.
Lifereach
Airmethods
First Communications
Nextel Communications
Call24
Seizmore Inc. Security
Personal Care Ambulance
Mobile Care Health Services Llc
Trident Health Systems
Palmetto Ambulance Service
Palmetto Health Richland
Marlboro Park Hospital
Orangeburg Regional Medical Center
Roper St Francis Healthcare
Roper St Francis Healthcare

Local Government Users

Easley Police Dept
Central Police Department
McColl Police Dept
Pageland City Police
Chesterfield Police Dept
McBee Police Department
Union City Police
Liberty Police Dept
Ware Shoals Police Dept
Clio Police Dept
Seneca Police Dept
Greenwood Police Dept
McCormick Police Dept
Fort Mill Police Dept
Westminster Polce Dept
Ninety Six Police Dept
Saluda Police Dept
Brunson Police Dept
Williston Police Dept
Barnwell Police Dept
Blackville Police Dept
Fairfax Police Dept
Allendale Police Dept
Walhalla Police Dept
Bamberg Police Dept
Olar Police Department
Gifford Police Department
Edgefield Police Dept
Ashley River Fire Department
Batesburg-Leesville
Leesville Rescue Squad
Bowman Police Dept
Branchville Police Department
Branchville Rescue Squad
Chapin Police Dept
Blythe
Columbia Police Dept
Columbia Fire Department
Columbia
Columbia Fleet Services
Columbia
West Columbia Police Dept
Eastover Police Dept
Forest Acres Police Dept.
Harleyville Rural Fire Dept
Hephzibah Police Dept
Holly Hill Police Dept
Elloree Police Dept
Irmo Fire District
North Police Dept.
Norway Police Dept
Ridgeville Police Department
Ridgeville Volunteer Fire Dept
Santee Police Dept
Springdale Police Dept

Other Users

Wackenhut Services Inc
Oconee Memorial Hospital
Presbyterian College Campus Police

Local Government Users

Richland - Lexington School Dist 5
Palmetto Health Baptist
Richland Memorial Security
Richland Memorial Careforce
Richland Memorial Engineering Dept
Richland Memorial NICU
Richland Memorial Senior Care
Greenville Transit Authority
Lexington Medical Center
LRADIC
Georgetown Fire
Georgetown Ems
Georgetown Emergency Services
Georgetown EPD
Midway Fire Rescue
Georgetown Coroner
Georgetown
Richland School District Two
South Greenville Fire District
Charleston Schools
Richland One School District
Newberry Sheriff
Edgefield Sheriff
Edgefield Co Senior Citizens Council
Edgefield EMA
Cherokee
Union Sheriff
Union Emergency Services
Lancaster Fire Services
Lancaster Ems
Lancaster Sheriff
St. Matthews Town Of
Generations Unlimited
Cheraw Fire Dept
Cheraw Police Dept
York Emergency Management
McCormick Sheriff
McCormick Co Emergency Services
Bamberg Co Sheriff
Florence
Newberry Memorial Hospital
Oconee Sheriff
Pine Grove Fire Dept
Pickens EMS
Pickens Sheriff
Holly Springs Fire Dept
Pumpkintown Fire Dept
Whitesville Fire Dept
Forty One Community Vol FD
Hartsville Police Dept

Local Government Users

Springfield Police Dept
Chester Police Department
Eutawville Police Department
St George Police Dept
St George Fire Dept
Summerville Police Dept
Vance Police Dept
Cayce
Ridgeway Police Department
New Ellenton Police Department
Burnettown Police Department
Camden Police Department
Salley Police Department
Fort Lawn Police Department
Elgin Police Department
Perry
Great Falls Police Department
Aiken Department Of Public Safety
North Augusta Department Of Public Safety
Bethune Police Department
Pendleton Police Department
Darlington Police Department
Darlington Co. Sheriff Office
Lamar Police Department
Sumter City Police Department
West Pelzer Police Department
Anderson City Police Department
Anderson City Fire Department
Murrells Inlet
Georgetown Sheriff Office
Georgetown Communications
Georgetown
Laurens Sheriff Dept
Laurens Police Dept
Laurens EMS
Laurens EMA
Iva Police Department
Santee Wateree RTA
Williamston Police Department
Georgetown City Police Department
Georgetown City Fire / Grant 04
Georgetown City Fire
Belton Police Department
Honea Path Police Department
Georgetown City Electric Dept
Calhoun Sheriffs Office
Chesterfield Sheriffs Dept
Cameron Police Department
Simpsonville Police Department
Society Hill Police Department
Pelion Police Department
Greenwood
Saluda EMD

Local Government Users	Local Government Users
Pimlico Rural Vol Fire Dept	Barnwell Sheriff Office
Allendale Sheriff	Hampton Sheriff
Lower Savannah / Allendale	Marlboro Sheriff
Allendale Barnwell Counties	Abbeville Sheriff
Aiken Area Council On Aging Inc	Abbeville Emergency Mgt
Columbia Housing Authority	Abbeville Co Fire Commission
Midlands Technical College	Abbeville Coroner
Clinton Police Department	Williamsburg Tec
Clinton High School	Longridge Rural Fire Dept.

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2230

Exhibit 6 – Palmetto 800 User's Group Meeting

Agencies in attendance at the May 16, 2007 Palmetto 800 User's Group meeting:

Aiken County Coroner	Jasper County
Aiken County Emergency Preparedness	Kershaw County E911 Director
Aiken Dept. of Public Safety	Kershaw County Fire Service
Anderson County Sheriff's Office	Lee County Fire Chief
Augusta Richmond County	Lexington Medical Center Public Safety
Berkeley County EPD	Lexington Police Department
Berkeley County Sheriff's Office	Livestock Poultry-Health
Brunson Police Dept	Marion County Director
Carolina Communications	Mental Health
Charleston County	Mobile Communications of Chas
Chester County EMA	Mt Pleasant Police Dept
City of Columbia	MUSC
Clarendon County	Pelion Police
Clemson	Pickens County Emergency Management
Columbia Police Dept	Pickens County EMS
DHEC	PPP
Division of the State CIO	Prosperity Police Dept
DNR	Richland County Emergency Services
DOT	Richland County Sheriff's Office
DPS Florence Communications Center	Santee Cooper
Edisto Electric Coop	South Carolina LLR
FBI	South Carolina EMD
Fort Lawn Police Dept	South Carolina HP
Georgetown County	SLED
Gifford Police Dept	Spartanburg 911
Goose Creek Police Dept	Summerville Police Dept
Greenville City	Sumter
Hanahan Police Dept	Town of North
Hartsville Police Department	Town of Perry
Irmo Police Dept	West Columbia Police Dept

Exhibit – 7 Emergency Communications Equipment Resources

CIO Communications Equipment Resources

- (2) 800 MHz 10 Watt Portable Repeaters.
- (2) 800 MHz 25 Watt Portable Repeaters
- UHF 10 Watt Portable Repeater.
- VHF 10 Watt Portable Repeater.
- (200) 800 MHz Handheld Radios
- (25) VHF Handheld Radios
- (25) UHF Handheld Radios
- 35’ portable antennas
- ACU-1000
- (10) 6 bay rack chargers
- 75’ Portable Communications Towers
- (3)MSAT Portable Satellite phones/radios
- (9)Iridium Portable Satellite Phones

CIO Portable Communications Tower Resources

The CIO has two (2) portable communications towers, each is equipped with:

- (2) 800 MHz Conventional Repeaters.
- UHF Conventional Repeater.
- VHF Conventional Repeater.
- 7,000 watt generator
- 25 gallon fuel tank
- (4) 5 gallon fuel cans
- (2) 500 watt quartz lights
- 2000 watt portable generator
- 6 bay rack radio chargers
- VHF, UHF & 800 MHz Desk Top Control Station
- DC Rectifier system